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UNITED STATES DISTRICT COURT  
  
CENTRAL DISTRICT OF CALIFORNIA - WESTERN DIVISION  
  
HONORABLE STANLEY BLUMENFELD, JR., U.S. DISTRICT JUDGE  
  
SANTA CLARITA VALLEY WATER AGENCY, )  
 )  
Plaintiff, )  
 )  
v. ) Case No.  
 ) CV 18-6825 SB (RAOx)  
WHITTAKER CORPORATION, et al., )  
 ) Volume 5  
Defendants. ) (Pages 459 - 617)  
 )

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REPORTER'S TRANSCRIPT OF TRIAL PROCEEDINGS  
TRIAL DAY 3: A.M. SESSION  
FRIDAY, NOVEMBER 19, 2021  
8:23 A.M.  
LOS ANGELES, CALIFORNIA

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MYRA L. PONCE, CSR 11544, CRR, RPR, RMR, RDR  
FEDERAL OFFICIAL COURT REPORTER  
350 WEST 1ST STREET, ROOM 4455  
LOS ANGELES, CALIFORNIA 90012  
(213) 894-2305

**APPEARANCES OF COUNSEL:**

**FOR THE PLAINTIFF:**

NOSSAMAN, LLP  
BY: BYRON P. GEE  
BY: RAVEN MCGUANE  
BY: PATRICK J. RICHARD  
BY: FRED FUDACZ  
Attorneys at Law  
777 South Figueroa Street, 34th Floor  
Los Angeles, California 90017  
(213) 612-7800

NOSSAMAN, LLP  
BY: ILSE CHANDALAR SCOTT  
Attorney at Law  
50 California Street, 34th Floor  
San Francisco, California 94111  
(415) 398-3600

**FOR THE DEFENDANT WHITTAKER CORPORATION:**

EDLIN, GALLAGHER, HUIE & BLUM  
BY: MICHAEL E. GALLAGHER, JR.  
BY: FRED M. BLUM  
BY: DANIEL ERIC TROWBRIDGE  
Attorneys at Law  
500 Washington Street, Suite 700  
San Francisco, California 94111  
(415) 397-9006

**ALSO PRESENT:**

MATT STONE  
SCOTT FRYER  
RON BEATON  
ERIC LARDIERE

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1 FRIDAY, NOVEMBER 19, 2021; 8:23 A.M.

2 LOS ANGELES, CALIFORNIA

3 -oOo-

4 (Out of the presence of the jury:)

08:23AM 5 THE COURT: Good morning, everyone.

6 Let's go ahead and call the matter.

7 THE COURTROOM DEPUTY: Calling Item No. 1, Case  
8 No. CV 18-06825-SB, Santa Clarita Valley Water Agency versus  
9 Whittaker Corporation, et al.

08:23AM 10 Counsel, please state your appearances, starting  
11 with plaintiff's counsel.

12 MR. RICHARD: Good morning. Patrick Richard. This  
13 morning with me is Ms. Scott, Mr. Gee, and our client  
14 representative, Mr. Stone, and our paralegal, Ms. Micevych.

08:24AM 15 MR. BLUM: Good morning, Your Honor. Fred Blum for  
16 Whittaker along with our client, Eric Lardiere, and co-counsel,  
17 Daniel Trowbridge, Mike Gallagher, paralegal, Scott Fryer, and  
18 our technician, Rick Bell.

19 THE COURT: Good morning, everyone.

08:24AM 20 We are outside the presence of the jury.

21 The Court did rule on the objections to the  
22 deposition designation and/or counter-designation of  
23 John Peloquin, P-e-l-o-q-u-i-n. I provided both counsel with  
24 the Court's rulings, and all counsel have submitted on the  
08:24AM 25 Court's ruling without request for hearing.

1 Let me just quickly memorialize for the record the  
2 Court's ruling.

3 So with regard to page 93, lines 3 to 11, the  
4 objection is sustained.

08:25AM 5 Page 128, line 9, through 129, line 2, sustained.

6 Page 130, line 15, to 131, line 3, overruled.

7 Page 134, line 18, to 135, line 9, sustained.

8 Page 167, line 15, to page 168, line 8, and 168,  
9 line 11, to 169, line 13, sustained.

08:25AM 10 Page 181, line 1, to 182, line 3, overruled.

11 And the only question I have is presentation.

12 Mr. Richard, is it the parties' intent to have the plaintiff  
13 play all of the designations and counter-designations, or how  
14 do you anticipate the logistics of it?

08:26AM 15 MR. RICHARD: Yes, Your Honor. We have spoken to  
16 opposing counsel, and we're just going to have a single  
17 play-through. We'll split the time. It's roughly 30 minutes  
18 each side.

19 And then we do have a stipulation about the exhibits  
08:26AM 20 that come in through Mr. Peloquin's testimony, and I have extra  
21 copies of that stipulation. It just basically identifies the  
22 records, the exhibits that have already been stipulated but  
23 that the jury will be seeing when they see the video.

24 THE COURT: Is there any reason we can't just do the  
08:26AM 25 stipulation or tell me what the admitted exhibits are going to

1 be? Or do they need to know that?

2 MR. RICHARD: No, no. I'm just proposing that we  
3 have a record of it for the Court. So whenever the Court wants  
4 the stipulation, I can either read it or just hand it to the --

08:27AM 5 THE COURT: Why don't you just read it, please.

6 MR. RICHARD: Sure.

7 Stipulation regarding Peloquin deposition video.  
8 Both parties have identified parts of the videotaped deposition  
9 of John Peloquin that they would like the jury to hear.

08:27AM 10 So I guess this is something that we would like  
11 Your Honor to read so the jury knows --

12 THE COURT: That's fine. So you can just provide  
13 that, please --

14 MR. RICHARD: Okay.

08:27AM 15 THE COURT: -- to Mr. Cruz, and the Court will read  
16 it to the jury.

17 And I believe there was an issue that the plaintiff  
18 wished to address with the Court.

19 MR. RICHARD: Yes, Your Honor.

08:27AM 20 We had touched on this earlier in the week. There  
21 is a document that was a deposition exhibit. It's before the  
22 Court. We have an extra copy if the Court needs it. There's a  
23 50-page document, findings of fact and conclusions of law from  
24 a case in which my client was not a party involving the  
08:28AM 25 United States of America and insurance companies for Whittaker.

1 And counsel earlier this week represented to the  
2 Court that he wanted to ask Dr. Hughto about these findings  
3 because Dr. Hughto had not reviewed them and he wanted to ask  
4 why not. Then he realized that, in fact, Dr. Hughto had been  
08:28AM 5 asked about these findings during his deposition. So he  
6 changed course.

7 But he's identified, that is, Whittaker's counsel  
8 has identified 27 different facts in these findings from  
9 another judge that referred to evidence that we do not have  
08:28AM 10 that he wants to ask Dr. Hughto about.

11 And whether the document is merely for purposes of  
12 identification, once the jury hears that there's been findings  
13 of fact in another case about government inspectors and  
14 disposal practices and all the rest, this would be a  
08:29AM 15 straight-up problem.

16 It's actually a due process problem because it would  
17 raise these findings of fact to really collateral estoppel  
18 because I have no way to meet evidence with -- with evidence.  
19 And there's no benign way to examine a witness. Even if  
08:29AM 20 they're not in evidence, telling a witness I have findings of  
21 fact from another court that I want to ask you about is a  
22 problem.

23 THE COURT: We have one minute. The jury is going  
24 to come in at 8:30 sharp. So you have about 30 seconds. This  
08:29AM 25 should have been raised with the Court previously.



1 Mr. Blum, I'll give you 30 seconds to respond.

2 MR. BLUM: Dr. Hughto did consider them. They were  
3 in Mr. Dawson's report. And they were cited in Mr. Dawson's  
4 report verbatim. And he also said that he got all of the  
08:29AM 5 documents that Mr. Dawson got.

6 THE COURT: Give me the thrust of necessity to  
7 cross-examine Dr. Hughto about this.

8 MR. BLUM: Dr. Hughto says there was no  
9 documentation or evidence regarding contracts, inspectors, and  
08:30AM 10 other things. And these things were specifically cited in  
11 Mr. Dawson's report, and part of the sources was the findings.  
12 So when he said yesterday on the witness stand there were no  
13 documents, it's not true.

14 THE COURT: All right. I'm going to make a 403  
08:30AM 15 ruling and preclude your reference to the findings and  
16 conclusions.

17 In my view, while there is an issue with respect to  
18 the existence of documents, this opens the door, it seems to  
19 me, to the search warrant issue, potentially to the criminal  
08:30AM 20 investigation because I believe I heard Mr. Blum previously  
21 suggest that some of the documents may have been confiscated  
22 and that's why they don't exist.

23 And in my view, the probative value of this evidence  
24 is not so high that it warrants entering into issues where I do  
08:31AM 25 think the Court is going to be called upon to potentially even

1 revisit its ruling with respect to whether I'm going to allow  
2 in the issue regarding the criminal investigation.

08:31AM

3 So I do not see an easy way to allow this evidence  
4 to come in without opening doors and also without getting into  
5 findings and conclusions.

6 Mr. Blum, you're going to have -- I'll give you ten  
7 more seconds, but this should have been brought to the Court's  
8 attention previously.

9 MR. BLUM: Your Honor --

08:31AM

10 THE COURT: I have given the parties an incredible  
11 amount of judicial time, including an entire afternoon, and  
12 this is being brought to the Court's attention while the jury  
13 is now right outside the door.

08:31AM

14 MR. BLUM: Your Honor, you asked me to -- to specify  
15 what I wanted, and I submitted those to them several days ago.  
16 So I haven't sat on anything.

17 THE COURT: And has it been presented to the Court?

18 MR. BLUM: I haven't gotten a response from them  
19 until last night.

08:32AM

20 THE COURT: Mr. Blum --

21 MR. BLUM: No.

22 THE COURT: Did you present it to the Court?

23 Please take your seat. The Court has ruled. Take  
24 your seat.

08:32AM

25 MR. BLUM: May I ask you a question, Your Honor?

1 THE COURT: Yes.

2 MR. BLUM: The "I refer to it as from a source,"  
3 generally without being specific as to where it came from to  
4 show that he did have -- he did have access to somebody else's  
08:32AM 5 review of these contracts.

6 THE COURT: Let me hear what the question is.

7 MR. BLUM: The question would be, Dr. Hughto, in  
8 Mr. Dawson's report, didn't he cite to another source who had  
9 reviewed the contracts and had cited what the contracts were  
08:32AM 10 verbatim?

11 THE COURT: What is the relevance of what the  
12 contracts are? Is this for the defense contractor defense?

13 MR. BLUM: No, sir. It's for the issue of standard  
14 of care, that we are arguing that we operated pursuant to the  
08:33AM 15 DOD guidelines. Mr. Hughto is going to say we didn't.

16 THE COURT: And how is the jury going to know  
17 whether that's true or not by knowing whether there are some  
18 documents that they're never going to see?

19 MR. BLUM: Because there are people who actually saw  
08:33AM 20 them. For one of them -- there is a Mr. Robert Zoch who saw  
21 them, and Robert Zoch's declaration and his report were relied  
22 upon by Dr. Hughto.

23 THE COURT: So then produce the evidence through  
24 that witness.

08:33AM 25 The Court has ruled. Please take a seat.

1 MR. BLUM: Thank you, Your Honor.

2 THE COURT: Let's go ahead and bring in the jury.

3 THE COURTROOM DEPUTY: May the witness take the  
4 stand?

08:33AM 5 THE COURT: Yes. Of course, please.

6 (In the presence of the jury:)

7 THE COURT: We remain on the record in Santa Clarita  
8 Valley Water Agency versus Whittaker Corporation. We are now  
9 joined by our jury.

08:34AM 10 Good morning, ladies and gentlemen.

11 THE JURY: Good morning.

12 THE COURT: And we have Dr. Hughto on the witness  
13 stand. You may recall that he was testifying on direct  
14 examination.

08:34AM 15 And, Mr. Richard, you may continue your examination  
16 after I remind Dr. Hughto that he is under oath.

17 Do you understand that?

18 THE WITNESS: I do.

19 THE COURT: All right. Please proceed when you're  
08:34AM 20 ready.

21 MR. RICHARD: Thank you, Your Honor. And good  
22 morning.

23 Good morning, ladies and gentlemen, counsel.

24 ///

08:34AM 25 ///

RICHARD HUGHTO, PH.D.,

PLAINTIFF'S WITNESS, PREVIOUSLY SWORN, TESTIFIED AS FOLLOWS:

**DIRECT EXAMINATION (RESUMED)**

BY MR. RICHARD:

Q. I believe we left off on something of a cliffhanger. I was asking about your first opinion, Dr. Hughto. With respect to the first area of your opinions, can you share with us any conclusions you have reached as to whether Whittaker followed their own policy for waste handling?

A. I can. My opinion in that area is that Whittaker did not follow its own stated policies related to waste disposal.

Q. And can you explain that briefly?

A. Yes. As I testified yesterday, I have not seen many documents related to the operations, to the tracking of -- of waste handling within the facility. But what I have been able to review and draw some understanding was correspondence within Whittaker, correspondence between Whittaker and regulatory agencies, and testimony of Whittaker employees and related documents and that -- that brought out that there was a policy of no dumping of waste on the ground. And there was -- there is documentation of extensive dumping of waste on the ground.

Q. Okay. And before we turn to the records that you reviewed that you just alluded to, can you briefly tell us the nature of your second conclusion regarding the data that you

1 reviewed and the correlation of that to site practices?

08:36AM 2 A. Yes. I alluded some yesterday to the site data  
3 which includes the physical observations and chemical testing  
4 data related to soil, groundwater soil vapor, and other media  
5 on the site. And I reviewed the data. I reviewed the areas  
6 where there had been waste handling and disposal on the site  
7 and -- the site being the Whittaker site. And there is a  
8 correlation between where contamination was found, particularly  
9 very high concentrations of contamination, and where these  
08:37AM 10 waste handling practices took place on the site.

11 Q. And can you give us examples of the types of  
12 practices that occurred or the documents that -- based on the  
13 documents and other evidence you reviewed, what types of  
14 practices were you able to identify and correlate to the data  
08:37AM 15 you reviewed?

16 A. Yes. There were -- there was an area where there  
17 were impoundments which I think I discussed yesterday which  
18 were essentially ponds where liquid waste was handled. There  
19 were landfill areas, surface waste disposal types of areas, and  
08:37AM 20 there was a Burn Valley where waste materials from across the  
21 site was -- were brought and -- some of which, anyway, were  
22 burned as a -- as a waste disposal mechanism.

23 Q. Okay. And, again, we'll -- we'll get into the  
24 documents here in a minute for a little more detail.

08:38AM 25 But you mentioned a third area of conclusions you

1 had reached. Can you tell us what that was?

2 A. Sure. The third area is related to Whittaker's  
3 relationship and interaction with the regulatory agencies. And  
4 my opinion is that Whittaker delayed the implementation of  
08:38AM 5 required groundwater monitoring, despite clearly having  
6 knowledge that it was required, and also that they misled  
7 the -- "they" being Whittaker -- misled the regulatory agencies  
8 in the area of disclosure of some of the waste disposal  
9 practices.

08:38AM 10 Q. Okay. Why don't we turn to some of the materials  
11 that you reviewed. The -- and I believe you have a binder  
12 there, but we'll put it up on the screen.

13 A. I have two.

14 Q. Well, the first document that I would like to ask  
08:39AM 15 you about is Exhibit 201, which the parties have stipulated to.

16 (Exhibit 201 received into evidence.)

17 Q. (BY MR. RICHARD:) This is a letter from  
18 August 14th, 1978, to a Mr. Hampson of the California Regional  
19 Water Quality Control Board from Whittaker-Bermite, PB George,  
08:39AM 20 plant safety engineer.

21 And do you recognize this as one of the documents  
22 you reviewed in your work in this case?

23 A. I do.

24 Q. And what -- it's from Whittaker; is that right?

08:40AM 25 A. It is.

1 Q. And in what way did this document -- well, let's  
2 look at the first paragraph just to put it in a little more  
3 context. This is the safety -- plant safety engineer writing  
4 to the California Regional Water Quality Control Board?

08:40AM

5 A. It is.

6 Q. And he's referring to a conversation. And he says,  
7 "The following information is submitted as required for  
8 emergency destruction of hazardous materials."

9 Do you see that?

08:40AM

10 A. I do.

11 Q. And what do those hazardous materials include?

12 A. In the bottom half of the page, see chemical  
13 compositions, are -- it mentions five different substances --  
14 aluminum powder, ammonium perchlorate, butarez, epoxy, and  
15 mapo.

08:41AM

16 Q. And above that, how many -- what was the volume of  
17 hazardous substances that Whittaker was seeking to have  
18 emergency destruction of at this time?

19 A. It -- in the second paragraph, it mentions a total  
20 estimated weight of 5,000 pounds, and it contained 75 55-gallon  
21 drums.

08:41AM

22 Q. So Whittaker at this time in 1978 had 75 55-gallon  
23 drums that included trace amounts of perchloroethylene. Do you  
24 see that?

08:41AM

25 A. I do.



1 Q. What is perchloroethylene?

2 A. Perchloroethylene is -- I've also referred to as  
3 PCE. It is one of the solvents used in degreasing at the  
4 property.

08:41AM

5 Q. And so in what way is this first document that we're  
6 looking at, how does this impact the conclusions you reached in  
7 this matter?

08:42AM

8 A. It is a demonstration that they have accumulated a  
9 fairly large quantity, 5,000 pounds, of waste material, which  
10 is -- if you look at the percentages, the majority was ammonium  
11 perchlorate, which is the propellant material, perchlorate  
12 being one of the primary soil and groundwater contaminants at  
13 the site, and that there is an emergency -- a destruction  
14 that's required, and they're looking to get approval on an  
15 emergency basis.

08:42AM

16 Q. And what is -- why is it significant to you that it  
17 was on an emergency basis?

18 A. I think it's -- in my experience, it's unusual --

19 MR. BLUM: Objection. Speculation.

08:42AM

20 THE COURT: Sustained. Rephrase your question.

21 MR. RICHARD: Sure.

22 Q. (BY MR. RICHARD:) Can you tell us what is it about  
23 the reference to emergency destruction that made this document  
24 of significance to you in the work you did in this case?

08:43AM

25 MR. BLUM: Objection. Speculation. No foundation.

1 THE COURT: Overruled.

2 And, ladies and gentlemen, you should consider it  
3 for that very limited purpose in terms of its significance to  
4 this expert in the performance of his work responsibility.

08:43AM 5 You can answer the question.

6 THE WITNESS: Yes. It -- the -- I'm trying to  
7 recall the question now after the discussion.

8 The emergency, to me, in my experience, if  
9 there's -- if a facility has a routine waste management policy  
08:43AM 10 and practice that they follow, it is unusual to have an  
11 emergency situation where something falls outside of that.  
12 That's what struck me here is that we have -- you have  
13 perchlorate in PCE, a solvent, that are site contaminants that  
14 need to be handled and destroyed on an emergency basis.

08:44AM 15 Q. (BY MR. RICHARD:) Okay. Thank you.

16 Next, we have another Whittaker document,  
17 Exhibit 202, which is also the subject of a stipulation. This  
18 is dated May 29th, 1979, from a Mr. John Peloquin, corporate  
19 industrial hygienist, to a Mr. Zoyd Luce.

08:44AM 20 Do you have this document, sir?

21 A. I do have it. Hard copy, and it's on the screen.

22 Q. And is this one of the documents you reviewed in the  
23 course of your work in this case?

24 A. It is.

08:44AM 25 Q. And in what way did this document impact the work

1 you did to reach the conclusions you've shared with us?

2 A. There are a lot of documents here, so I'm just going  
3 to take a quick look through to refresh my memory.

4 Yes. On the second page of the document, there is  
08:45AM 5 an Item 4 which struck me. And there's a discussion of one of  
6 the vapor degreasers at the site and the recognition by the  
7 author, Mr. Peloquin, that acute exposure to the vapors -- I  
8 explained yesterday how vapor degreaser works. You take a  
9 solvent and you vaporize it. And someone who is operating a  
08:45AM 10 machine or close to a machine, if not careful, can become  
11 exposed.

12 What Mr. Peloquin is saying here in 1979 is that  
13 acute exposure to the vapors can cause death. Chronic mild  
14 exposure to the vapors has been known to cause permanent liver  
08:46AM 15 damage. He's identifying the potential health effects of being  
16 exposed to the vapor degreasing solvents that were being used.

17 Q. Okay. And why --

18 A. And going -- I'm sorry. Going on in the document.  
19 Would you like me to proceed?

08:46AM 20 Q. Yes. Anything else of significance in this  
21 Exhibit 202 before we --

22 A. Yes. In item 7 on that same page, there's talk of a  
23 waste dumping program that needs to be initiated and  
24 implemented. Mr. Peloquin, again, is -- is the author, and he  
08:46AM 25 says that it appears there's an indiscriminate dumping of waste

1 to the environment in a few areas that he lists.

2 Q. Okay. And did you review any safety manuals that  
3 related to the disposal of hazardous waste at the Whittaker  
4 site?

08:47AM

5 A. I did.

6 Q. And can we look -- why don't you tell us first.  
7 What -- in what way did the safety manual or manuals you  
8 reviewed impact the work you did in this case?

08:47AM

9 A. I -- I'm referring to a DOD, Department of Defense,  
10 safety manual that I think was from 1968. I also saw a  
11 subsequent one that was from a -- a date after this facility  
12 was no longer operating. But in that document, there is a  
13 prohibition against disposal of waste on the ground surface.

08:48AM

14 Q. And then in terms of Whittaker's own safety manuals,  
15 did those -- what was the relationship between their own  
16 manuals that you reviewed and these DOD safety guidelines you  
17 identified?

08:48AM

18 A. I don't -- I have not received any Whittaker safety  
19 manuals. The information I have on Whittaker policies for  
20 disposal of waste comes from correspondence and testimony of  
21 the employees.

22 Q. Maybe I'm not describing it correctly. Can -- can  
23 you take -- do you have Exhibit 203 in front of you, sir?

24 A. I do.

08:48AM

25 Q. And can you tell us what, before we publish it --

1 oh, I think -- yeah, there's a stip to this as well. But can  
2 you tell us what Exhibit 203 is?

3 A. Yes. It's a document entitled, "Procedures for  
4 Disposal of Hazardous Material," dated January 16th, 1980.

08:48AM 5 (Exhibit 203 received into evidence.)

6 Q. (BY MR. RICHARD:) Okay. And is this a document you  
7 reviewed in the course of your work in this case?

8 A. It is.

9 Q. Okay. And how do you refer to this document?

08:49AM 10 A. I would call it the -- what the title is, the  
11 Hazardous Material Disposal Procedure document.

12 Q. Okay. And if we could look at page 3, the General  
13 Standards section.

14 MR. RICHARD: Can you enlarge towards the bottom  
08:49AM 15 there, bottom of the page? Thank you.

16 Q. (BY MR. RICHARD:) And we see a reference to DOD.  
17 Do you see that, right after General Standards for Destruction?

18 A. Oh, I see. Yes. There's some citation to it,  
19 apparently a citation to a DOD document.

08:49AM 20 Q. Okay. And I just wanted to ask you, you've talked  
21 about the -- what was prohibited in terms of their policy.

22 Can you explain what paragraph B generally refers  
23 to?

24 A. Yes. The -- paragraph A introduces the idea that --  
08:50AM 25 that sometimes you have to destroy some of the ammunition

1 explosives created on the property.

2 And B is entitled "Prohibited Disposal" and says,  
3 "Burying ammunition and explosives or dumping them into waste  
4 places, pits, wells, marshes, shallow streams, or inland  
08:50AM 5 waterways is prohibited."

6 Q. Okay. Thank you.

7 And did -- why don't we take a look at Exhibit 205,  
8 also stipulated.

9 (Exhibit 205 received into evidence.)

08:50AM 10 Q. (BY MR. RICHARD:) This is a memo from October 9th,  
11 1980, from Zoyd Luce to Mr. Moore.

12 Can you tell us, is this one of the documents you  
13 reviewed in the course of your work in this case?

14 A. It is.

08:50AM 15 Q. And in -- it's entitled "Violations of the Resource  
16 Conservation and Recovery Act." Is that the RCRA law you  
17 talked about yesterday?

18 A. It is.

19 Q. And it begins by -- well, can you read that first  
08:51AM 20 paragraph there below the subject line?

21 A. Sure. It reads: "Attached is a list of current  
22 violations of the Resource Conservation and Recovery Act's  
23 prohibitions against dumping waste materials on the ground. I  
24 will be working from this list to correct these problems during  
08:51AM 25 coming weeks."

1 MR. BLUM: Your Honor, I'm sorry. What's the title  
2 of this document?

3 THE COURT: You can ask your next question, please,  
4 Mr. Richard.

08:51AM 5 MR. RICHARD: Thank you.

6 Q. (BY MR. RICHARD:) And when you -- in what way did  
7 this Exhibit 205 from 1980 impact the work you did regarding  
8 whether Whittaker followed its own policy against dumping waste  
9 on the ground?

08:52AM 10 A. First of all, looking at this paragraph that's  
11 enlarged and what's highlighted are the words "current  
12 violations," meaning, to me, that that was going on at the time  
13 Mr. Luce prepared this memo. And that's October 9th, 1980.

14 Continuing on the two-page -- two additional pages  
08:52AM 15 to this memo, and there's a title here, "Types of Materials  
16 Being Dumped in the Ground by Building Location." And it --  
17 what it does is it identifies, I believe it is, 29 different  
18 locations on the property where materials were being dumped on  
19 the ground. And materials include -- they include a lot of  
08:52AM 20 materials used at the property.

21 To highlight some of them, perchloroethylene, which  
22 is PCE, the solvent that I've been talking about and is a  
23 significant contaminant at the site is included. It's also --  
24 it's included more than once, including some misspellings of  
08:53AM 25 the word, but it's -- perchloroethylene is PCE.

1 Q. Let me stop you there. I know I'm interrupting.  
2 Let's just go through. If we can go to the bottom of the  
3 left-hand column under all of these sites that were listed in  
4 1980 as having types of material being dumped on ground.

08:53AM 5 We see something called JATO mix. Do you see that?

6 A. I do.

7 Q. And what's the reference there to -- first of all,  
8 why would H2O be listed, if you know?

9 A. Well, probably because water was discharged. The  
08:53AM 10 water could have contained contaminants.

11 Q. Okay. And we see the second item listed there is  
12 what?

13 A. Perchloroethylene, which is PCE.

14 Q. Okay. And then we see up at the top of the  
08:54AM 15 right-hand column the -- is that lampblack building?

16 A. Yes.

17 Q. And, again, we see perchloroethylene?

18 A. Yes.

19 Q. And so that's another area where Mr. Luce of  
08:54AM 20 Whittaker was observing that that material was being dumped on  
21 the ground. Is that how you interpreted this?

22 A. Yes.

23 Q. And then the item right below that is Building 307.  
24 Do you see that?

08:54AM 25 A. I do.



1 Q. And is prechloroethylene a recognized chemical or --

2 A. Not one that I know of. And when I saw this, I did  
3 look the word up and could not find it.

4 Q. So how did you interpret that?

08:54AM 5 A. I interpreted that to mean there's a typo there and  
6 they meant perchloroethylene. The "E" and the "R" should have  
7 been transposed.

8 Q. We see that same issue with Building 317 which lists  
9 a number of other chemicals as well. Do you see that?

08:55AM 10 A. I do.

11 Q. So just looking at that, that's -- one, two,  
12 three -- four different areas where Mr. Luce was observing that  
13 perchloroethylene was being dumped on the ground in  
14 October 1980; is that right?

08:55AM 15 A. In the four areas, he specifically calls it out.  
16 And then there's a catch-all in the burn pit area which would  
17 be a fifth area.

18 Q. Okay. And let's look at that.

19 So for the -- 28 of the 29 sites, there are  
08:55AM 20 chemicals identified, some of the -- sometimes it's referred to  
21 as just solvents. But for the burn pits, what does it say  
22 there?

23 A. It says, "All chemicals and explosives on plant."

24 Q. And what does that tell you?

08:55AM 25 A. That tells me Mr. Luce was saying that all of the

1 chemicals and the explosives on the plant were being disposed  
2 of on the ground in the burn pit area.

08:56AM

3 Q. And was that one of the areas that you reviewed data  
4 for that was obtained many, many years after 1980 as to what  
5 contaminants were in the soil at the burn pits?

6 A. Yes.

08:56AM

7 Q. And we see -- so the four specific references to PCE  
8 and then the catch-all for all chemicals and explosives on the  
9 plant end up in the burn pits, what -- what does that tell you,  
10 if anything, as to what -- what solvent or solvents were being  
11 used at this time?

08:57AM

12 A. Well, again, the -- the first line of this memo  
13 talked about current violations and what was being dumped on  
14 the ground at that current time. And there are these multiple  
15 references to perchloroethylene, which means to me that  
16 perchloroethylene was being used at the property at that time.

17 Q. And in your experience, were there -- do we see any  
18 reference to a chemical referred to as TCA?

19 A. You said TCA?

08:57AM

20 Q. Yes, sir.

21 A. I do not see a reference to TCA on -- on these two  
22 pages.

23 Q. And are you familiar with the chemical referred to  
24 as TCA?

08:57AM

25 A. I am.

1 Q. And what is that?

2 A. TCA is an abbreviation for 1,1,1-trichloroethane,  
3 ending in a-n-e. And it is a compound that has been used as a  
4 degreasing solvent, wasn't as -- in my experience, talking to  
08:57AM 5 people who used different solvents, wasn't as effective in  
6 degreasing as TCE or PCE but became more popular in the '80s  
7 because of the discovery of potential health effects with TCE  
8 and PCE.

9 Q. Thank you.

08:58AM 10 Before we move on -- well, why don't we just move  
11 on. The next document I'd like to show you has also been  
12 stipulated to, Exhibit 206.

13 (Exhibit 206 received into evidence.)

14 Q. (BY MR. RICHARD:) This is a memo. The subject is  
08:58AM 15 "Contamination of the hog-out area." And this is written just  
16 a little bit after the memo we just looked at. So this is  
17 dated October 15, 1980, company confidential, from  
18 Mr. Zoyd Luce to Mr. Ray Sabin that begins "Several problems  
19 exist with respect to the hog-out operation."

08:58AM 20 Do you see that?

21 A. I do.

22 Q. And can you explain for us -- I think you touched on  
23 it yesterday, but what is a hog-out operation?

24 A. The -- the propellant that was in some of the -- the  
08:59AM 25 missile technologies created at the site, were manufactured at

1 the site were only effective for a certain period of time. And  
2 if they were stored for that amount of time or greater, the --  
3 the propellant would have to be removed and possibly replaced.

08:59AM 4 The hogging out was the process by which they  
5 removed the propellant, and it was done -- at least one method  
6 that I'm familiar with from the documentation is that it was  
7 done with high pressure water shooting into the canisters, I  
8 guess we can call them, to flush the propellant out.

08:59AM 9 Q. And just on that point, if you could look at Item 4,  
10 talks about that waste propellant being washed down the hill.  
11 Do you see that?

12 A. I do.

13 Q. And can you read that for us?

09:00AM 14 A. Sure. "The waste propellant has washed down the  
15 hill in copious amounts and is contaminating the Orofino Canyon  
16 stream, in direct violation of the RCRA."

09:00AM 17 Q. And that's one of the four items that -- this is in  
18 addition to the 29 areas where we just saw Mr. Luce observe  
19 dumping of waste on the ground. Here, he's describing these  
20 as, quote, "existing problems."

21 Why would washing a -- water with a propellant down  
22 the hill in copious amounts, in your experience, be considered  
23 an existing problem?

09:00AM 24 A. It is a problem, first of all, because, as it says  
25 here, it's going to -- to a -- to a stream, which is an

1 environmental impact, an adverse environmental impact.

2 Also, the propellant contains perchlorate, the  
3 contaminant that -- the chemical I've been talking about, which  
4 is very soluble in water. If it gets exposed to water, it will  
09:01AM 5 dissolve in water readily and move very quickly in water.

6 By using so much water to do the hog-out operation  
7 and then having all this water flowing down a hill in contact  
8 with the propellant, it will -- that water will dissolve a  
9 great deal of the perchlorate and be dissolved when it enters  
09:01AM 10 the stream, but it also has the ability to percolate into the  
11 ground as it is exposed to the ground and migrate to the  
12 groundwater.

13 Q. But, Dr. Hughto, in your experience, were the health  
14 impacts of perchlorate really all that well-known in 1980?

09:01AM 15 A. They were not.

16 Q. So was -- in your experience, was Mr. Luce correct  
17 in describing these as problems if he didn't know all the  
18 health -- potential health effects of these contaminants that  
19 were being washed down the hill in copious amounts?

09:02AM 20 A. I'm sorry. Was Mr. Luce -- was --

21 Q. Incorrect in describing these as existing problems  
22 and the problems proposed by this contamination?

23 A. In my opinion, he was correct in this material. If  
24 it washed down the hill and into the stream as he describes,  
09:02AM 25 that it was contaminating that stream.

09:02AM 1 Q. Okay. And was there any significance to you for the  
2 work you did in this case in evaluating the policy of no  
3 dumping, et cetera, where Mr. Luce writes in the second line up  
4 at the top there, "The crux of the problem is that the area is  
5 not presently, adequately policed"?

09:03AM 6 A. Yes. It appears that Mr. Luce is calling out the  
7 fact that this hog-out operation, which again is jetting large  
8 quantities of water in to remove these propellents, that he --  
9 under the ground, that he's -- he's saying it is not properly  
10 policed or adequately policed is his term.

11 Q. Okay.

12 A. And, again, it was happening on the ground. So it  
13 was a discharge of -- of a waste material to the ground.

09:03AM 14 Q. And did you see any evidence that Mr. Luce ever  
15 wrote a memo, at least that was provided to you, in which he  
16 changed his mind and said, don't worry about these discharges  
17 because we're being told to do this by government inspectors?

18 A. I've never seen such a document.

09:03AM 19 Q. Okay. And then he goes on at the bottom of this  
20 memo where he talks about the problems posed by this  
21 contamination. Do you see that? "Suggests serious problems  
22 within the Bermite management."

23 A. I see that, yes.

09:04AM 24 Q. And then for the third or fourth time, he uses the  
25 word "problems" and says, "Problems surrounding the hog-out

1 contamination are" -- and he describes No. 1, several employees  
2 responsible.

3 Do you see that?

4 A. I do.

09:04AM

5 Q. And he refers to instructions dated in July 1979 and  
6 says -- regarding propellant plant waste for disposal and says,  
7 quote, "Yet those instructions have been ignored in the case of  
8 the hog-out area." And he asks the question, "Why?" close  
9 quote.

09:04AM

10 Was that significant to you in the work you did in  
11 this case?

12 A. It is and has been and -- because it shows that a  
13 Whittaker employee, safety employee, is calling out the fact  
14 that the waste disposal -- the plant waste disposal  
15 instructions are not being followed.

09:05AM

16 Q. And then he concludes this memo. And, again, this  
17 is back in 1980. Do you see that last paragraph there?

18 A. I do.

19 Q. And can you read that to us?

09:05AM

20 A. "The problem is serious and requires your immediate  
21 attention. The safety department cannot continue to promulgate  
22 guidelines and rules when their execution by management does  
23 not occur."

09:05AM

24 Q. And was that significant to you in the work you did  
25 in this case, Dr. Hughto?

1 A. It is.

2 Q. Why is that?

09:06AM

3 A. Again, Mr. Luce is pointing out the fact that there  
4 are guidelines and rules and that these are not -- excuse me --  
5 they are not -- the management is not ensuring that they're  
6 being executed.

09:06AM

7 Q. And did you see any evidence that the problems about  
8 dumping on the site and problems in the hog-out area, were  
9 those taken care of within a couple of weeks after Mr. Luce's  
10 memo based on the materials you reviewed?

11 A. I have not seen documentation of -- of Whittaker  
12 going back to the hog-out area and changing the practices.

09:06AM

13 Q. Did you see evidence that other folks continued to  
14 identify issues at some of the same areas that Mr. Luce was  
15 identifying in 1980?

16 A. Yes.

17 Q. Before we look at that, I want to show you  
18 Exhibit 468, another document that is subject to stipulation.

19 (Exhibit 468 received into evidence.)

09:07AM

20 Q. (BY MR. RICHARD:) This subject is "Unknown" -- it's  
21 put in quotes, "Unknown stored liquid waste." It's dated  
22 June 19th, 1981, another Whittaker memo. This one's just one  
23 page.

24 Do you see that?

09:07AM

25 A. I see it.



1 Q. And is this one of the documents you reviewed in the  
2 course of your work in this case?

3 A. It is.

4 Q. And in what way would this short memo on unknown  
09:07AM 5 stored liquid waste and unidentified liquid waste impact the  
6 conclusions you reached?

7 A. Let me read the beginning of it --

8 Q. Certainly.

9 A. -- so I can put that into context of your question.  
09:07AM 10 "Because unidentified liquid waste has again  
11 appeared from several sources, it will be necessary for  
12 Jim Jisa to have a contracted wasted hauler" -- I assume he  
13 meant waste, not wasted, "hauler remove it from Bermite."

14 What this is saying to me is that there are  
09:08AM 15 unidentified liquid wastes and that the word "again" is  
16 important to me because, again, the word "again" means that  
17 this happened in the past. So they have these unidentified  
18 liquid wastes again from several sources.

19 And the -- farther down the memo, there's a callout  
09:08AM 20 for -- if people have any such wastes and lists seven of them.  
21 What this says to me, if there was a routine waste management  
22 policy that was being practiced and enforced that -- that  
23 unidentified liquids would not again on a repeated basis, the  
24 word "again" appears to me, showing up and having to be --  
09:08AM 25 managed by the author of this memo.

1 Q. And you mentioned the seven areas which are -- he  
2 put in all caps "ARE NOT NOW HANDLED IN THE SYSTEM," and he  
3 refers to solvents and sludge, among other things.

4 Do you know what he's referring to there?

09:09AM 5 A. Well, first, it's saying not handled in the system,  
6 meaning -- it says to me that there's not a system in place, a  
7 waste management system in place to deal with these -- these  
8 seven items.

9 You asked about solvents. The TCE, PCE that have  
09:09AM 10 been used up to this date in degreasing would be solvents. And  
11 there are other solvents that were used around the facility.  
12 The word "solvents" was on Exhibit 205 that listed the -- the  
13 29 areas where materials were dumped on the ground. Solvents  
14 as a general category were listed there.

09:09AM 15 And you asked about sludge. One sludge that I  
16 believe would have existed on the property would have been the  
17 sludge that I believe I described yesterday from the degreasing  
18 machines that -- when it removes the grease, the grease has to  
19 go somewhere, and the grease became part of a sludge that would  
09:10AM 20 have to be managed.

21 Q. Let me ask you a question.

22 In your experience, would the sludge from degreasers  
23 contain the solvent that was being used, whether it was TCE or  
24 PCE?

09:10AM 25 A. It would.

1 Q. And in your work in this case, did you see any logs,  
2 operational logs -- daily, weekly, monthly -- that actually  
3 identified or kept track of where all that contaminated sludge  
4 went?

09:10AM

5 A. I have seen no documents that tracked the generation  
6 of such a sludge, the handling of it, the storage of it, or the  
7 final disposition.

09:11AM

8 Q. And with respect to the data you found of solvents,  
9 chlorinated solvents, TCE and PCE in and among other areas in  
10 the burn pit, would the volume or concentration of those VOCs  
11 in that area be consistent with placing or releasing sludge in  
12 that same area?

09:11AM

13 A. Yes. In the burn pit area, there were extremely  
14 high concentrations of PCE, TCE, and TCA in the soils  
15 underlying the burn pit area, which meant to me that some kind  
16 of a waste disposal practice was going on there that  
17 included not just residuals or -- or waste that had a small  
18 amount of these solvents. It was -- something was being  
19 disposed of there that had high concentrations of solvents, and  
20 the sludge from the degreasing machines would be consistent  
21 with that type of a finding.

09:11AM

22 Q. And -- okay. Thank you.

23 If we could look at a document from 1982. This is  
24 Exhibit 504. It's also the subject of a stipulation, it's  
25 dated April 12th, 1982. This is from Jim Jisa, and the subject

09:12AM

1 is Hula Bowl.

2 (Exhibit 504 received into evidence.)

3 Q. (BY MR. RICHARD:) Do you see that?

4 A. I do.

09:12AM

5 Q. And my first question is: The Hula Bowl area was  
6 one of the 29 areas on Exhibit 205 that we just looked at; is  
7 that right?

8 A. Yes.

9 Q. And so -- let's see.

09:12AM

10 We have Zoyd Luce talking about the Hula Bowl in  
11 October 1980 as one of the many areas where materials were  
12 being dumped on the ground. And then here we are in April 1982  
13 with a memo that says subject "Hula Bowl." And it looks like  
14 they had a meeting regarding the Hula Bowl status.

09:13AM

15 Do you see that?

16 A. I do.

17 Q. And can you tell us -- and this document then has  
18 some attachments -- in what way this document impacted the work  
19 you did in this case?

09:13AM

20 A. Yes. It's a brief memo. It talks about a meeting  
21 that occurred and said that the decision was made to cover up  
22 all material except old drums and said that the drums will be  
23 flattened, put in a dumpster, and sold for scrap. They  
24 apparently had a monetary value to them. They could be sold,  
09:13AM 25 possibly recycled.

1           It goes on to say, "It was also decided to not allow  
2 any more dumping in this area. This means that inert scrap  
3 will have to go to a landfill."

4           Q.     Okay.

09:13AM

5           A.     So what this is saying to me -- and you asked about  
6 the importance in my evaluation of documents in this case.

7 This is saying to me that waste materials were dumped in that  
8 area, and the data -- the subsequent data, the soil and the  
9 groundwater data, verified that there was waste disposal in

09:14AM

10 this area and that they, at this point in 1982, are going to,  
11 with the exception of the old drums, just cover up the  
12 materials there.

13          Q.     And he refers to it. He describes it --

14          A.     By the way, if I can finish the answer, sir.

09:14AM

15                 It says, "except the old drums." And it says, "the  
16 drums will be flattened," meaning these aren't drums full of  
17 something and they're -- the material in the drums is being  
18 taken out to be disposed. Whatever was in the drums, if  
19 anything, when they disposed of them would remain in the area.

09:14AM

20          Q.     And he refers to old drums. Did you see any  
21 documentation -- again, logs, daily, weekly, monthly -- that  
22 would tell us how long those old drums had been in the  
23 Hula Bowl?

09:15AM

24          A.     I have seen no documents to tell me when drums were  
25 taken to the Hula Bowl, what the contents were, where they came

1 from, or what the final disposition was.

2 Q. Did you see any documents that would pinpoint for us  
3 how long Whittaker had been using the Hula Bowl as a dumping  
4 area?

09:15AM 5 A. I am trying to recall if I've seen documentation how  
6 long it's been used, and I am -- I'm blanking on it as -- off  
7 the top of my head.

8 Q. You know, "I don't remember" is a perfectly fine  
9 answer.

09:15AM 10 Okay. Did you see any documentations -- any  
11 documents that Whittaker or Bermite, based on your review,  
12 attempted to enforce restrictions on what could be dumped in  
13 the Hula Bowl before April 1982 when Jim Jisa identifies that  
14 they're no longer going to be dumping in that area?

09:16AM 15 A. I don't recall seeing any such documents.

16 Q. Okay. And then there's some handwritten notes as  
17 part of this exhibit. Do you see that?

18 A. I do.

19 Q. And there are some that are numbered paragraphs,  
09:16AM 20 suggestions on Hula Bowl. Do you see that?

21 A. I do.

22 Q. And did you review these notes as part of your work  
23 in this case?

24 A. I did.

09:16AM 25 Q. And there's a paragraph, looks like it's 2(a),

1 "Dumping metal drums with any residue of hazardous material is  
2 illegal." Do you see that?

3 A. I do.

4 Q. It goes on to say, "This has happened in the past."

09:17AM 5 Would that have any -- did that have any significance for the  
6 work you did in this case?

7 A. Yes. This -- this paragraph you're talking about is  
8 A under No. 2 above, which -- No. 2. It says, "The dumping  
9 prohibited items in Bermite dumpsters should not be used as a  
09:17AM 10 way to circumvent any new procedure which takes effect after  
11 cleanup is completed. For example." And then the A paragraph  
12 that you talked about.

13 What this says is that -- that there have been drums  
14 with residual hazardous materials to be disposed in the past  
09:17AM 15 and that they have been informally warned by the entity  
16 Blue Barrel Disposal about the disposing of these drums and  
17 been told that it was illegal.

18 Q. Okay. And we talked a minute ago about back in  
19 1980, Mr. Luce raising the issue of promulgating rules that  
09:18AM 20 weren't followed. I wanted to ask you if the next page of  
21 these notes, it's page 504.4, there's a reference to the  
22 Hula Bowl, and then it says, "It should be the responsibility."

23 Do you see that?

24 A. The first line of the page?

09:18AM 25 Q. Yes.

1 A. Yes.

2 Q. And can you -- can you read that for us?

3 A. Apparently it carries over from the previous page.

4 Q. Just start with, "It should be."

09:18AM 5 A. Okay. Yeah, that's a new sentence here.

6 "It should be the responsibility of the people in  
7 charge of the various buildings to see that this is enforced.  
8 The overall attitude has always been," open quotes, "'Screw  
9 it,'" comma, "'throw it in the dumpster,'" close quote.

09:19AM 10 "Everyone should realize that just because we own this land  
11 doesn't exempt us from the many laws governing disposal."

12 Q. Thank you.

13 And in what way did that reference impact the work  
14 you did in this case?

09:19AM 15 A. What this is saying is that it -- that there are  
16 people in charge. There was -- there were references in the  
17 earlier document that we looked at, if I get the number of it,  
18 that talked about policing and better management oversight of  
19 the waste disposal processes. And here's another -- another  
09:19AM 20 reference to the responsibility of the people in charge. The  
21 attitude has been throw it in the dumpster.

22 But here, the author of these handwritten notes is  
23 saying that they've been told that that is illegal. Just by  
24 being a practice, that it's illegal and shouldn't be continued.

09:20AM 25 Q. Okay. Thank you.



1                   So we've looked at one document from 1980 that  
2                   talked about the Hula Bowl, among other areas, where there was  
3                   dumping. We have this memo from April 1982 talking about the  
4                   Hula Bowl in the comments you just read.

09:20AM

5                   I want to show you Exhibit 210. Now we're moving  
6                   into August 1982. This is August 26, 1982. It's also the  
7                   subject of a stipulation.

8                   (Exhibit 210 received into evidence.)

09:20AM

9                   Q.       (BY MR. RICHARD:) Subject: "EPA health and safety  
10                  survey."

11                  Do you see that?

12                  A.       I do.

09:20AM

13                  Q.       And again, this is from John Peloquin, corporate  
14                  industrial hygienist. And I want to ask you about page 2. And  
15                  you see that paragraph No. 7?

16                  A.       I do.

17                  Q.       He's also talking about the Hula Bowl there, isn't  
18                  he?

19                  A.       He is.

09:21AM

20                  Q.       And what does he say?

21                  A.       The paragraph begins with, "The Hula Bowl is a  
22                  disaster area."

23                  Q.       Okay.

24                  A.       Shall I continue?

09:21AM

25                  Q.       Sure.

1           A.       "All drums and scrap metal must be removed as soon  
2 as possible. The trash dump must be sanitized," sanitized  
3 being underlined, "immediately. All illegal industrial and  
4 sanitary waste must be removed and disposed of properly. In  
09:21AM 5 the future, all trash must be disposed of properly.

6                   "The Hula Bowl apparently has been used as an oil  
7 changing station. The oil spills and dirty filters must be  
8 cleaned up. The present condition of the Hula Bowl could very  
9 likely trigger groundwater monitoring. Cleanup of this area  
09:21AM 10 must receive top priority. A program preventing recurrence of  
11 this situation must also receive top priority."

12           Q.       Okay. So we talked -- they talked about the  
13 Hula Bowl in 1980, 1980 -- early 1982, and then now we're in  
14 August 1982.

09:22AM 15                   My first question is: Based on your experience, if  
16 all that was dumped or placed in the Hula Bowl were wood  
17 pallets and scrap metal, typically would there be a concern  
18 about illegal industrial and sanitary waste?

19                   MR. BLUM: Speculation, Your Honor.

09:22AM 20                   MR. RICHARD: I'll rephrase it.

21           Q.       (BY MR. RICHARD:) In your experience, sir, are  
22 scrap wood pallets and metal generally referred to as illegal  
23 industrial and sanitary waste?

24           A.       Not in my experience.

09:22AM 25           Q.       Okay. If we could look at Exhibit 466. This is a

1 memo from September 29th, 1982. It's also from Zoyd Luce.

2 This one's to Mr. Jisa.

3 (Exhibit 466 received into evidence.)

4 THE COURT: And this is subject to stipulation?

09:23AM

5 MR. RICHARD: I'm sorry, Your Honor. Yes, it is. I  
6 was doing so well on that point.

7 Q. (BY MR. RICHARD:) This short memo refers to  
8 relocation of propellant waste. Do you see that, sir?

9 A. I do.

09:23AM

10 Q. And why would a reference to -- would a reference to  
11 propellant waste, what does that tell us in terms of the work  
12 you did in this case?

13 A. That the propellant waste is a waste material  
14 generated as a result of the processes at the property.

09:23AM

15 Q. And typically when you see a reference to  
16 propellant, does that indicate any of the chemicals that we're  
17 talking about in this case?

18 A. Yes, it does. Perchlorate is a constituent of the  
19 propellants.

09:24AM

20 Q. And he's -- he says, "We will remove our waste from  
21 the area to Building 308 and store it temporarily in trailers  
22 inside the Hula Bowl."

23 Why would there be an issue with storing propellant  
24 inside the Hula Bowl -- or propellant waste? Sorry.

09:24AM

25 A. Propellant waste, my understanding was it was -- the

1 way it was handled on the site was burned in the Burn Valley or  
2 the burn pit area. It -- the -- my -- I do not -- I have not  
3 seen any documentation that these wastes could be disposed of  
4 in the Hula Bowl area.

09:24AM

5 MR. BLUM: Objection, Your Honor. There's no  
6 evidence that it was disposed of.

7 THE COURT: Just the objection and the legal ground.  
8 The objection --

9 MR. BLUM: Objection. Not in evidence.

09:25AM

10 THE COURT: The objection is sustained, and the jury  
11 is to disregard the answer.

12 Q. (BY MR. RICHARD:) Sir, did you see any  
13 documentation as to how long the propellant waste containing  
14 perchlorate was stored at the Hula Bowl?

09:25AM

15 A. I don't recall seeing such documentation.

16 Q. Okay. The -- I saw a reference to -- yes, in  
17 Exhibit 210, that paragraph you read about the Hula Bowl at the  
18 top of page 2, we saw a reference to triggering groundwater  
19 monitoring, just to go backwards for a second.

09:25AM

20 A. Yes. I see that.

21 Q. And in general, can you explain to us why the  
22 situation described in August 1982 regarding the Hula Bowl  
23 would very likely trigger groundwater monitoring, based on your  
24 experience?

09:26AM

25 A. Yes. The timing of this memo being --

1 MR. BLUM: Objection, Your Honor.

2 THE COURT: What's the legal ground of the  
3 objection?

4 MR. BLUM: Speculation, no foundation.

09:26AM 5 THE COURT: Overruled as the question was framed.

6 You can answer. And the question is limited to what  
7 essentially triggers groundwater monitoring in the context of  
8 the facts of this case, based upon your experience.

9 MR. RICHARD: Thank you, Your Honor.

09:26AM 10 THE WITNESS: Thank you.

11 This is 1982. The RCRA regulations were promulgated  
12 in '80. And one aspect of the RCRA regulations before, that  
13 when an area may have an impact on surface water or groundwater  
14 that required installing monitoring wells and the regulations  
15 were specific enough to say one monitoring well upgradient and  
16 four monitoring wells in total -- and I forget if I described  
17 upgradient and downgradient yesterday.

18 Water flows downhill. And surface to ground also  
19 flows downhill under the ground. There's a slope to  
09:27AM 20 groundwater. Upgradient is where the water came from.  
21 Downgradient is where it's going to.

22 So the -- what this paragraph means to me is that  
23 the author is -- is concluding or -- or opining that the  
24 conditions are such that it will trigger groundwater monitoring  
09:27AM 25 requirements.

1 Q. (BY MR. RICHARD:) Did you see any evidence in your  
2 work in this case that in the same time frame Whittaker was  
3 seeking to obtain a waiver or delay imposition of the  
4 requirements you just described for groundwater monitoring?

09:28AM

5 A. I believe that -- both, that there was an effort  
6 to -- for a waiver as well as delay in installing groundwater  
7 monitoring wells that were required.

8 Q. If you could look at Exhibit 24, which is also the  
9 subject of a stipulation.

09:28AM

10 (Exhibit 24 received into evidence.)

11 Q. (BY MR. RICHARD:) This is a letter from Zoyd Luce,  
12 the same fellow who's been identifying those problems of  
13 dumping for the prior two years, at least, to the -- Mr. Wong.  
14 Do you see that? Waste management specialist, State of  
15 California, Department of Health Services?

09:28AM

16 A. I do.

17 Q. The reference is to interim status document.  
18 Subject: Waiver for groundwater monitoring. Is this one of  
19 the documents you reviewed in this case?

09:28AM

20 A. It is.

21 Q. And he identifies a number of areas there.  
22 And then the bottom of the page, he says -- that  
23 paragraph, "We feel that we do not require groundwater  
24 monitoring." He goes on.

09:29AM

25 Is this one of the documents you reviewed? Did I

1 ask you that?

2 A. You did ask me, and I did review it.

3 Q. Okay. Well, I asked you twice.

4 In what way did this document impact the work you  
09:29AM 5 did in this case?

6 A. It, uh -- the way it impacts, it's written by  
7 Mr. Luce again. Mr. Luce was quite aware of the dumping on the  
8 ground because he was the author of Exhibit 205 that listed the  
9 29 areas of disposal waste in the ground, including liquid  
09:29AM 10 waste.

11 And so this appears to me to be a -- an effort to  
12 delay the groundwater monitoring because the -- the  
13 requirements are clearly triggered by the fact they're dumping  
14 liquid waste on the ground in these areas.

09:30AM 15 MR. BLUM: I object as pure speculation and move to  
16 strike.

17 THE COURT: Overruled.

18 Q. (BY MR. RICHARD:) The next page of Exhibit 24, we  
19 see Mr. Luce talking about the estimated cost of groundwater  
09:30AM 20 monitoring at that time?

21 A. I do.

22 Q. And he goes on to say, "We feel no benefit would be  
23 derived by Bermite." Do you see that?

24 A. I do.

09:30AM 25 Q. By this time in August -- in October 1982, had

1 Whittaker identified or Bermite-Whittaker -- by the way, when  
2 it refers to Bermite, that was a -- as we see on the very top  
3 of this document and many others, Bermite was a division of  
4 Whittaker Corporation; is that right?

09:31AM 5 A. That is my understanding.

6 Q. Okay. By October 1982, the time of this letter  
7 seeking a waiver for groundwater monitoring, was Whittaker  
8 aware of issues regarding the pond or the sump that you  
9 described at Building 317 based on the materials you reviewed?

09:31AM 10 A. Yes.

11 Q. And again, what -- what was, in general, the issue  
12 with the pond or sump at Building 317?

13 A. When you said "the issue," there are multiple  
14 issues. The pond -- the construction of the pond was in  
09:31AM 15 Part 2 -- solvent waste went through the pond in Part 2 for  
16 evaporation. That same area was the hog-out area, and some of  
17 the water from the hog-out area was channeled to the pond. The  
18 pond had an issue during periods of precipitation of certain  
19 quantity where it would overflow.

09:32AM 20 The pond also was unlined when it was first  
21 constructed, which would allow the contents to percolate into  
22 the ground. It was later lined, but there were periodically  
23 issues found with the liner and had to be repaired, meaning  
24 that the liner had lost at least some of its integrity in  
09:32AM 25 allowing this waste to percolate into the ground.



1 Q. Okay. Let's look at a couple of documents regarding  
2 the pond at Building 317.

3 Exhibit 453 is another document that is subject to a  
4 stipulation. It's dated March 17th, 1982.

09:32AM 5 (Exhibit 453 received into evidence.)

6 Q. (BY MR. RICHARD:) So we just looked at a document  
7 from October, now we're going back in time a few months. This  
8 is from Jim Jisa. Subject: Sump adjacent to Building 317.

9 Do you see that?

09:33AM 10 A. I do.

11 Q. Is this one of the documents you relied on in your  
12 work in this case?

13 A. It is.

14 Q. And the first sentence says, "The sump adjacent to  
09:33AM 15 Building 317 is not adequate to sustain the amount of waste  
16 flow going into it."

17 Almost sounds like an overflowing toilet. Can you  
18 tell us --

19 MR. BLUM: Objection, Your Honor.

09:33AM 20 THE COURT: Sustained.

21 And I'm going to admonish both counsel that I do not  
22 want to hear comments, only questions.

23 MR. RICHARD: Fair enough, Your Honor. Thank you.

24 Q. (BY MR. RICHARD:) Did that first description or the  
09:33AM 25 following description have any significance in the work you did

1 in this case?

2 A. Yes.

3 Q. Then can you explain that?

09:33AM 4 A. Sure. The -- I just talked about that a little bit  
5 in the previous answer, that the -- the capacity was not such  
6 that it could handle the waste material, the waste -- the  
7 solvent waste being discharged as a matter of course in  
8 operating the facility and the precipitation that was caused  
9 during heavy rains and there would be overflows.

09:34AM 10 Q. And the next paragraph, paragraph No. 2 there, do  
11 you see that?

12 A. I do.

13 Q. And you had mentioned "hog out," and so I want to  
14 ask you about this paragraph. "The original design was for a  
09:34AM 15 motor washout. Now we run A.P. from the Building 314 hog out  
16 into the sump as well as waste from" -- what does that say? --  
17 "steam lines and liquid waste from the M.T.V. operation."

18 Why would that be a -- a concern at this time in  
19 March 1982, based on your experience?

09:34AM 20 A. Well, the -- the sump pond only had a certain  
21 capacity. And if -- if it is at its capacity during a period  
22 of heavy rain and you're adding in these other sources of  
23 water, regardless of what's in the water, it's going to  
24 effectively decrease the capacity and cause more overflows.

09:35AM 25 Q. And is that what Mr. Jisa's referring to in the next

1 line where he says, quote, "The sump as it currently exists is  
2 not large enough to contain the present waste flow going into  
3 it. We resubmit the following recommendations for your  
4 consideration"? Is that what he's referring to there, the size  
09:35AM 5 of the sump pond?

6 A. That's my understanding of what he's saying, is  
7 similar to what I just said in my previous answer.

8 Q. And would there be any significance to you in the  
9 work that you did in this case that Mr. Jisa is resubmitting  
09:35AM 10 his recommendations regarding the inadequate sump at  
11 Building 317?

12 A. Well, resubmitting, this says to me that it isn't  
13 the first time that he's made these types of recommendations,  
14 which makes it sounds like it's a problem that has occurred in  
09:36AM 15 the past or has been observed in the past and brought to the  
16 attention of -- whoever he brought it to the attention of.  
17 Here he has a memo to distribution with -- with multiple cc's.

18 Q. Okay. So this was a waste pond that was designed  
19 for one use and then, by March 1982, was being used for several  
09:36AM 20 other waste disposal issues and was not sufficiently large for  
21 those new purposes. Is that how -- is that a fair reading of  
22 this?

23 A. Yes.

24 Q. And if you could, sticking on the topic of this pond  
09:36AM 25 or sump at Building 317, I'd like to show you a document from

1 December 4, 1982, Exhibit 25, which is also the subject of a  
2 stipulation.

3 (Exhibit 25 received into evidence.)

09:37AM 4 Q. (BY MR. RICHARD:) And have you seen this? It's a  
5 letter, three-page letter from Mr. Robert T. Bean, consulting  
6 geologist. And it's to Zoyd Luce, who at this time is vice  
7 president, industrial relations. Do you see that?

8 A. I do.

09:37AM 9 Q. And in -- I wanted to ask you before we get to the  
10 other topics. If you could turn to page 2, evaluation of  
11 sumps. Do you see in the middle of the page there, evaluation  
12 of sumps?

13 MR. RICHARD: If we can enlarge that.

14 THE WITNESS: I see it.

09:37AM 15 Q. (BY MR. RICHARD:) And what sumps is he referring to  
16 here? I'm sorry. I should have probably started at page 1  
17 where he refers to sump at 317. My apologies.

18 Do you see Item 3 at page 1?

19 A. I do.

09:38AM 20 Q. Okay. And what is the reference to 37,000 gallons?

21 A. Well, what it says -- just to get the full context  
22 of that No. 3 item that you're pointing out. Mr. Bean is  
23 saying he's prepared this letter at the request -- at the  
24 request of Mr. Luce of Whittaker "after evaluation of all  
09:38AM 25 information obtained from the foregoing." And he said -- then

1 he lists three areas where he visited, which includes No. 3,  
2 the sump at 317, about -- he says it's about a 37,000-gallon  
3 capacity with a liner and dry box.

09:38AM 4 Q. Okay. And so with that background, if we could turn  
5 to page 2, evaluation of those sumps. And so he's -- he's  
6 talking about the two sumps there. Right? And he refers to  
7 Jim Jisa again. Do you see that?

8 A. Yes.

09:39AM 9 Q. And you mentioned earlier that the sump at one point  
10 did not have a liner and then it had a liner, and you described  
11 some issues with the liner of the sump. Can you tell us what a  
12 liner of a sump or pond is?

09:39AM 13 A. Sure. It's a constructed use -- usually it's  
14 plastic. It could be clay or some impermeable soil but  
15 generally a plastic material placed at the bottom to contain  
16 the pond -- contain the water in the pond and prevent  
17 percolation of the water to soils underneath.

09:40AM 18 Q. Okay. So you have the pond that we just saw was not  
19 adequate for all the new uses and would overflow in heavy  
20 rains. But here, the memo says -- this letter from their  
21 outside consultant, Mr. Bean, "According to Jim Jisa, there  
22 have been liner breaks. Unless the break occurred directly  
23 above the drain, the hazardous wastewater would move  
24 essentially straight down until it met a bed of low  
09:40AM 25 permeability, such as clay or mud stone. A perched groundwater

1 body is probably already present overlying this bed,"  
2 et cetera.

3 Can you explain what he's talking about there?

09:40AM 4 A. Yes. When he's talking about liner breaks, which  
5 means to me failures or breaks of some sort in the liner -- and  
6 I saw other -- mention of this in other documents.

7 And what Mr. Bean is saying, Mr. Bean being the  
8 geologist they hired to study this situation, that if the --  
9 that -- there was a drain underneath. The dry box, my  
09:41AM 10 understanding, is what they were calling it. It's a drain that  
11 was under the liner. So if the break or the leak, the liner  
12 was above that drain, then whatever leaked out of the pond  
13 would have gone into the drain and been collected and not  
14 gotten into the ground.

09:41AM 15 What Mr. Bean is saying here is that if it -- if it  
16 didn't, that it would move essentially straight down. Water  
17 put on the surface of the ground or under the surface of the  
18 ground, gravity will take it straight down.

19 And this -- there were solvents in this water in  
09:41AM 20 this pond that was a solvent wastewater disposal area. And  
21 it -- the solvents are heavier than water. They will make the  
22 water go down at an even faster rate than they would if they  
23 didn't contain the solvents.

24 So what he's saying is that the -- if there's a  
09:41AM 25 break in the pond and it wasn't right where the drain was put

1 to pick it up, pick up a leak, that it would have migrated  
2 directly down until it reached some impermeable soil, like a  
3 clay, a clay being, you know, relatively impermeable. The  
4 water would hit that and pond on top of it, so to speak,  
09:42AM 5 underground on top of the clay which could be a perched water  
6 condition which he mentioned is -- in his next sentence.

7 Q. Well, yeah, thank you, sir. Let's back up for a  
8 minute.

9 At page 1, he tells us -- he tells Mr. Luce why he  
09:42AM 10 was hired. Do you see the second sentence there at that first  
11 paragraph, "The principal object of the reconnaissance was to  
12 evaluate whether or not groundwater monitoring for hazardous  
13 waste would be required," period, close quote. Right? Do you  
14 see that?

09:42AM 15 A. I do.

16 Q. And then at page 2, the area that you were just  
17 reading, he says, quote, "The wastewater would then move  
18 downgradient in that aquifer. In the case of both sumps, this  
19 would almost certainly be in a westerly direction," period,  
09:43AM 20 close quote.

21 Can you tell us --

22 A. I'm sorry. Where are you?

23 Q. Page 2. Sorry. Oh, I should have waited. I'm  
24 sorry.

09:43AM 25 Do you see that?

1 THE COURT: The screen shows it.

2 THE WITNESS: Yes. Okay. I see it now.

3 Q. (BY MR. RICHARD:) Okay. And you were just telling  
4 us about how the liner breaks would result in this -- this  
09:43AM 5 water containing hazardous material moving through the soil to  
6 the aquifer; correct?

7 A. Correct. And what he's saying here it's going to  
8 move downgradient in that aquifer. So it would move vertically  
9 from the surface or where it's released under the pond, go down  
09:43AM 10 to the groundwater, and then migrate with the groundwater.

11 Q. Okay. And based on your experience, what would that  
12 observation about hazardous waste moving through the soil to  
13 the aquifer and then moving in a westerly direction, what would  
14 that have to do with whether or not groundwater monitoring  
09:44AM 15 should be put in place?

16 A. Well, as I said when I first described the  
17 regulation, if the area could be shown to potentially impact --  
18 or actually impact or potentially impact surface water or  
19 groundwater, that triggered the groundwater monitoring  
09:44AM 20 requirement that I described with the minimum of the four  
21 monitoring wells.

22 Q. In your experience, what is groundwater monitoring?  
23 What is the purpose of groundwater monitoring where you have  
24 actual or even potential contamination?

09:44AM 25 A. The purpose of groundwater monitoring, particularly



1 in the context we're talking here, is to -- is to attempt to  
2 understand if there is an impact on the quality of the  
3 groundwater and, if so, to understand how -- how it got to be  
4 contaminated, where the contamination came from, where it's  
09:45AM 5 going to.

6 Q. Well, what is groundwater monitoring? What does  
7 that mean? How does that tell you --

8 A. Do you mean how do you do it?

9 Q. Just basically, what is it?

09:45AM 10 A. Well, the -- the way you monitor the groundwater for  
11 the purposes that I just described is you install wells in the  
12 ground in -- at different elevations in groundwater that you  
13 want to study, that -- and those wells allow you -- wells are  
14 just pipes that are put in the ground. And there are slots in  
09:45AM 15 the pipes where the water is so the water can flow in.

16 You can collect a sample out of that well because  
17 the water -- of the groundwater that flows into the well. Then  
18 you can analyze that -- you can analyze the sample to see if  
19 there's chemical contamination of it.

09:45AM 20 And you can also -- when you have multiple wells,  
21 you can measure the elevation of the water in the different  
22 wells which gives you an indication of which way the  
23 groundwater is flowing.

24 Q. And in this case, why would the groundwater flowing  
09:46AM 25 in a westerly direction be an issue, if you know?

1 MR. BLUM: Objection, Your Honor. Vague as to time.

2 MR. RICHARD: I'll rephrase.

3 Q. (BY MR. RICHARD:) At this time, when Mr. Bean is  
4 telling Whittaker that the hazardous wastewater is flowing down  
09:46AM 5 to the aquifer, which almost certainly is in a westerly  
6 direction, at that time, in December 1982, why would that  
7 information be important?

8 A. Well, as I said previously, the -- the regulations  
9 required one upgradient well and a minimum of four in total.  
09:46AM 10 Knowing which way the groundwater likely flowed or almost  
11 certainly flowed, as Mr. Bean put it, gives you the perspective  
12 of where to place the monitoring wells to do the proper  
13 monitoring that's required.

14 Q. Okay. And then he goes on to talk about the  
09:47AM 15 potential for migration just below the portion we've  
16 highlighted there. Do you see that?

17 A. I do.

18 Q. And he refers to a health services memo, and he was  
19 kind enough to quote from it. It says, quote, "All or part of  
09:47AM 20 the groundwater monitoring requirements of this document may be  
21 waived if the owner or operator can demonstrate that there is a  
22 low potential for migration of hazardous waste or hazardous  
23 waste constituents from the facility via the uppermost aquifer  
24 to water supply wells or to surface water," close quote.

09:47AM 25 Was that generally consistent with your

1 understanding of groundwater monitoring requirements at this  
2 time?

3 A. It is.

09:47AM 4 Q. And so he identifies the basis on which one could  
5 obtain a waiver. He has been hired to evaluate whether or not  
6 groundwater monitoring will be required.

7 And then can you read the paragraph at the bottom of  
8 page 2 that begins "Unfortunately"?

9 A. Yes. And it then continues on to page 3.

09:48AM 10 "Unfortunately, however, there is almost certainly  
11 the potential for migration of hazardous waste or hazardous  
12 waste constituents from the facility to surface water. Heavily  
13 vegetated areas is present approximately 300 feet down-valley  
14 to the west of the phosphorous sump. According to Jim Jisa, a  
09:48AM 15 small lake is present in this area most of the year. Overflow  
16 from this lake moves down a tributary to the west to  
17 Placerita Creek and eventually to the Santa Clara River."

18 Q. And then -- so that was talking about surface water,  
19 the potential for surface water contamination.

09:48AM 20 Then he does talk about the potential for  
21 groundwater contamination in the next sentence?

22 A. He does.

23 Q. And what does he say there?

24 A. It says, "Analysis of hydrogeologic conditions" --  
09:49AM 25 hydrogeologic is the conditions in the ground related to

1 groundwater flow -- "indicates that any hazardous wastewater  
2 from the lower sump can be expected to percolate to the first  
3 perched aquifer and then move underground down the small valley  
4 to discharge into the lake. Natural discharge of groundwater  
09:49AM 5 in this manner keeps water in the lake."

6 Q. And then does he refer in his conclusions to the  
7 possibility of a more complete hydrogeologic investigation?

8 A. He does.

9 Q. And you're familiar with hydrogeologic  
09:49AM 10 investigations, sir?

11 A. I am.

12 Q. And how is it you're familiar with what  
13 hydrogeologic investigations are?

14 A. I've been responsible for conducting them for over  
09:50AM 15 40 years.

16 Q. Okay. And so he describes that a more complete  
17 hydrogeologic investigation would include test holes for water  
18 levels and pumping tests to determine permeability, et cetera.  
19 Do you see that?

09:50AM 20 A. I do.

21 Q. And he goes on to describe test holes and that those  
22 could then serve for monitoring wells. Do you see that?

23 A. I do.

24 Q. And then can you explain to us his conclusion that  
09:50AM 25 begins "However"?

1           A.     Yes.  He's -- first I'll read it, and then I'll  
2 explain it.

3           Q.     Thank you.

4           A.     Where are we?

09:50AM 5                "However" -- and obviously it's conclusion here, the  
6 second half of his paragraph 2 -- "since the results of a  
7 complete investigation would probably be negative as far as  
8 justifying a waiver on monitoring wells is concerned, such an  
9 investigation is not recommended."

09:51AM 10              Mr. Bean prepared this, as read early on in the  
11 memo, to determine whether or not there is a potential for  
12 groundwater -- or the need for groundwater monitoring.  What  
13 he's saying here is that if a complete investigation was to be  
14 undertaken -- and he describes the complete investigation  
09:51AM 15 earlier in that paragraph -- that the results would probably be  
16 negative as far as justifying the waiver of monitoring.

17              And as a result, he does not -- he recommends that  
18 the -- such an investigation not be conducted because he  
19 doesn't believe that it would provide the information that  
09:51AM 20 would allow -- allow them -- allow Whittaker to get the waiver  
21 for the groundwater monitoring requirements.

22           Q.     Okay.  And did you see any evidence that in this  
23 same time frame Whittaker, in fact, was seeking to avert  
24 groundwater -- avert or avoid groundwater monitoring?

09:52AM 25           A.     Yes.  Yes.

1 Q. And if we could look at another document that is the  
2 subject of a stipulation. This is Exhibit 215, dated  
3 December 22nd, 1982, another memo from Zoyd Luce.

4 (Exhibit 215 received into evidence.)

09:52AM 5 Q. (BY MR. RICHARD:) And this is to Al Simmons, safety  
6 director. Do you see that?

7 A. I do.

8 Q. Was Mr. Simmons with Whittaker?

9 A. Yes.

09:52AM 10 Q. And he refers to a copy of a report by a geologist  
11 hired to evaluate the possibility of groundwater monitoring and  
12 the latest letter from the EPA on the subject. And he goes on  
13 to say, "At this point, I see little hope of averting  
14 groundwater monitoring at Bermite," period, close quote.

09:53AM 15 In what way did this memo from Mr. Luce from  
16 December 1982, this Exhibit 215, impact the work you did in  
17 this case?

18 A. That Mr. Luce is passing on this information to  
19 Mr. Simmons and is -- and concluding that there's little hope  
09:53AM 20 they could avert this groundwater monitoring requirement that  
21 they were hoping to get a waiver from.

22 Q. Okay. Eventually Whittaker did obtain groundwater  
23 samples; is that right?

24 A. Yes.

09:53AM 25 Q. And did they have a well used for any purpose -- you

1 know, for pulling up water to use at the Whittaker Bermite site  
2 for any period of time, as far as you know?

3 A. My understanding is there was at least one well used  
4 for non-potable water supply on the property.

09:54AM 5 Q. And at some point in time, did that well experience  
6 any type of contamination?

7 A. I believe there was contamination discovered in that  
8 well in 1985.

9 Q. Okay. If we could look at Exhibit 437, which is  
09:54AM 10 also subject to a stipulation of the parties.

11 (Exhibit 437 received into evidence.)

12 Q. (BY MR. RICHARD:) This is a letter from the  
13 California Regional Water Quality Control Board, November 15th,  
14 1985, to the maintenance superintendent of the Bermite division  
09:54AM 15 of Whittaker Corporation. Do you see that?

16 A. Yes.

17 Q. Groundwater investigation studies. Do you see that?

18 A. I do.

19 Q. And he says, "Recent groundwater sampling results of  
09:54AM 20 your facility's water well have shown levels of organic  
21 contamination above the State Department of Health Services  
22 action levels."

23 In what way did this document in this time period  
24 impact the work you did in this case?

09:55AM 25 A. Well, it is a demonstration that there was

1 groundwater contamination on the property and specifically  
2 calls out organics. It doesn't say which organics, but it does  
3 identify organics. So this paragraph raises my concern because  
4 it does show some groundwater contamination on the property.

09:55AM

5 Q. And the California Regional Water Control Board goes  
6 on to request certain types of records. Do you see those  
7 categories?

8 A. I do.

9 Q. And the first one is what?

09:55AM

10 A. "Name and quantity of all chemicals used or stored  
11 in the facility," open paren, "(historical and current  
12 practices)," close paren.

13 Q. And in your experience, why would that information  
14 from Whittaker be important at this -- at this time?

09:56AM

15 A. Well, the state is asking -- the State is aware --  
16 the State is the author of the letter -- that they're aware of  
17 the contamination in Whittaker's own supply well and gather --  
18 and this is a routine type of a follow-up, consistent with what  
19 I described, a site assessment, historical research,

09:56AM

20 yesterday -- to further investigate groundwater contamination  
21 at that facility.

22 Q. And the next category says, "Present and past waste  
23 disposal practices for organic liquids." And what would that  
24 tell us, based on your experience, those records?

09:56AM

25 A. Those records -- and again, this is classic



1 follow-up information for a site assessment -- is it will  
2 inform whoever it's produced to of what practices there were  
3 for the disposal waste -- waste, in this particular --  
4 particularly organic liquids that would inform what it was  
09:57AM 5 chemically, the waste or the liquid, where -- where it was  
6 generated and where it was placed -- where it's placed when it  
7 was disposed.

8 Q. And did you see specific records -- again, the daily  
9 or weekly or monthly operational logs that you talked about or  
09:57AM 10 inventories, things of that nature, regarding the first and  
11 second category of this request from the California Regional  
12 Water Control Board from November 1985?

13 A. You're asking if I've seen any documents that would  
14 be responsive to No. 1 or No. 2?

09:58AM 15 Q. Yes, sir.

16 A. I have not seen such documents.

17 Q. And did you see any evidence that at some point in  
18 time after November 15th, 1985, Whittaker was cited for not  
19 being able to provide those types of records to state or  
09:58AM 20 federal environmental protection folks?

21 A. I do believe such -- I am -- I recall such a  
22 citation.

23 Q. Okay. Well, let's look at one of those.

24 How are we doing on time, Your Honor?

09:58AM 25 THE COURT: Continue, please.

1 MR. RICHARD: Thank you.

2 Q. (BY MR. RICHARD:) If we could look at Exhibit 1381,  
3 which is also the subject of a stipulation.

09:58AM

4 This is a letter with an enclosed determination of  
5 violation from June 4th, 1986.

6 MR. BLUM: Your Honor, this is up for I.D. only.

7 THE COURT: I can't hear you, Mr. Blum.

8 MR. BLUM: This was supposed to be for I.D. only.

09:59AM

9 THE COURT: All right. So please take that off of  
10 the screen.

11 And, Mr. Blum, when you address the Court, if you  
12 would please make sure you're speaking into the microphone.

13 MR. BLUM: Yes, sir. Yes, sir.

09:59AM

14 Q. (BY MR. RICHARD:) Sir, is this one of the notices  
15 of violation you believe you reviewed in this matter?

16 A. It is.

17 Q. And just very quickly, if you could refer to Count 5  
18 regarding operating records.

09:59AM

19 A. I would, but I'm not sure I have the document. I --  
20 you said it was 1318?

21 Q. 1381.

22 A. Oh, 81. Okay. In either case, I don't have a tab  
23 that's 1381.

24 MR. RICHARD: Excuse me, Your Honor.

10:00AM

25 Okay. We'll come back to it after the break,

1 Your Honor.

2 Q. (BY MR. RICHARD:) Okay. Moving on.

3 At some point did you review documents regarding  
4 Whittaker's dealings with one of its consultants,  
10:00AM 5 Wenck Associates?

6 A. Yes.

7 Q. And can you generally describe for us what you  
8 reviewed in that regard?

9 A. I reviewed -- I reviewed, I believe, some reports,  
10:00AM 10 some correspondence that presented results of investigations  
11 that Wenck -- an environmental consultant who did actually do  
12 investigations at the site for Whittaker. I reviewed  
13 documentation, reports, correspondence that documented some of  
14 that work.

10:01AM 15 Q. Okay. If we could look at one of those documents,  
16 Exhibit 445.

17 MR. RICHARD: It's already in evidence, Your Honor,  
18 and it's the subject of a stipulation.

19 Q. (BY MR. RICHARD:) Now, this is a memo dated  
10:01AM 20 June 22nd, 1987, from Wenck Associates to Whittaker  
21 Corporation. Do you see that?

22 A. I do.

23 Q. And this -- do you have an understanding as to what  
24 these pages -- what these pages are?

10:01AM 25 A. It's -- it's a document that I believe Mr. Sorsher

1 refers to as a -- the mystery memo. It's the documentation of  
2 some of the investigation of landfills on the property.

3 Q. Okay. And you're familiar with Mr. -- with who  
4 Mr. Sorsher is?

10:02AM

5 A. Yes. And who he was. He was a -- he was an  
6 official with the DTSC who was responsible for the oversight of  
7 the -- the investigation work being done at the site.

8 Q. Did you ever read any of his testimony?

9 A. Yes.

10:02AM

10 Q. Including deposition?

11 A. Yes.

12 Q. Okay. Do you have an understanding as to when this  
13 mystery memo was provided to Mr. Sorsher?

14 A. My recollection is that it was provided to  
15 Mr. Sorsher anonymously in 1991.

10:02AM

16 Q. Okay. So in what way -- and let's start with the --  
17 it's talking about landfills. The subject is Investigation of  
18 Landfills on Bermite Facility through June 19th, 1987. Do you  
19 see that?

10:02AM

20 A. I do.

21 Q. And he talks about a number of landfills, quote,  
22 "have been investigated and removed from the Bermite facility.  
23 There are others that have been investigated and have not been  
24 removed. Further areas have been identified as possible  
25 landfill sites and require investigation."

10:03AM

1           So just seeing that description of we have some  
2   landfills that have been removed, some that have been  
3   investigated, and some that still need to be investigated, in  
4   your experience, is that a kind of -- a common state of affairs  
10:03AM 5   at a site that has contamination issues?

6           THE COURT: Why don't you rephrase your question.

7           MR. RICHARD: Sure.

8           Q.     (BY MR. RICHARD:) In the process of site  
9   investigations you've conducted, is it fair to say you've  
10:03AM 10   learned things over time?

11          A.     Correct.

12          Q.     Okay. And in this case, the folks that had been  
13   hired by Whittaker identified landfills have been found in the  
14   bottom and on the sides of valleys and embankments. Do you see  
10:04AM 15   that?

16          A.     I do.

17          Q.     And he describes the use of the landfills evidently  
18   was anywhere from one day to possibly 40 years or more. And  
19   then he goes into the next paragraph, if we can enlarge that.

10:04AM 20                 "The materials that have been found in the landfills  
21   have varied from inert metal scrap" -- we talked about that  
22   earlier -- "to liquid and solid hazardous wastes."

23                 And so I want to stop you and ask you, for the site  
24   investigations you've been involved in, once you or a  
10:04AM 25   consultant who's investigating the property identifies the

1 presence of liquid and solid waste materials in landfills, is  
2 that a significant step in the course of a site assessment?

3 A. It's a significant finding.

4 Q. And why -- why would finding liquid and solid  
10:05AM 5 hazardous waste in landfills be a significant finding?

6 A. Well, in doing a site investigation or site  
7 assessment, as I was describing yesterday, one of the  
8 objectives at least is to identify impacts from waste materials  
9 or other -- or other sources of contamination. Encountering  
10:05AM 10 liquid and solid hazardous wastes as described here would be a  
11 significant finding, indicating that such materials had been  
12 disposed at that location.

13 Q. And just sticking on that point for a minute in  
14 terms of what Wenck was reporting here. If you go to page 2 in  
10:05AM 15 the middle of the page of Exhibit 445. There's a paragraph  
16 that begins "The percentage of hazardous wastes..." do you have  
17 that?

18 A. I do.

19 Q. So he's talking about "The percentage of hazardous  
10:06AM 20 wastes that have been found in each landfill site has varied  
21 from an estimated 1 percent to approximately 85 percent." He  
22 goes on -- first of all, let me stop you there.

23 Would that be a significant finding, in your  
24 experience, in the course of a site assessment?

10:06AM 25 A. It would be.

1 Q. Why is that?

2 A. What I -- I previously testified that finding the  
3 waste would be a significant finding. The next thing you want  
4 to know when you find the waste is how significant is it to the  
10:06AM 5 impact on the property? So knowing the -- the contents of it  
6 and the magnitude of it is very important here being up to  
7 approximately 85 percent of the waste in some of these -- or  
8 85 percent of being waste in some of these locations is  
9 significant.

10:07AM 10 Q. And Whittaker's consultant in this memo from June  
11 1987 goes on to note, "Those materials that have been  
12 determined to be hazardous have invariably been found in intact  
13 drums or deteriorated broken drums or metal containers."

14 Would that information be an important finding in a  
10:07AM 15 site assessment, in your experience?

16 A. Yes, it would.

17 Q. And why is this?

18 A. Well, one of the things in trying to understand a  
19 site assessment or investigation like this is -- again, is  
10:07AM 20 what's the source -- is there a source of waste material that  
21 could be contaminating the environment and what is the nature  
22 of that source?

23 Ultimately, you're trying to figure out if there's a  
24 problem that needs to be fixed and how to fix it. So we have  
10:07AM 25 to -- need to understand what it is if we're going to try to

1 fix it.

2 Q. And he goes on in this memo from June 1987,  
3 Exhibit 445, quote, "On average, about five drums per day have  
4 been discovered over the last month," period, close quote.

10:08AM 5 What, if anything, does that tell you, sir?

6 A. That tells me that -- I don't know if they worked  
7 every day in the month or they were working five days a week.  
8 But if it was every day that they had on average had recovered  
9 about 150 drums in a one-month period.

10:08AM 10 Q. And when it says "discovered," does that indicate to  
11 you whether it was above ground or below ground?

12 MR. BLUM: Vague, Your Honor. It also has to be --  
13 speculative.

14 MR. RICHARD: I'll rephrase.

10:08AM 15 Q. (BY MR. RICHARD:) In your experience with the site  
16 assessment of landfills, do you attach any significance to the  
17 description here of drums being discovered?

18 A. They're being discovered -- they could be totally  
19 underground, partially underground, or on the surface of -- so  
10:09AM 20 it just -- they haven't even been discovered. If it's in a  
21 remote location, it could have been just discovered. It  
22 doesn't say to me that they were buried.

23 Q. Okay. And Mr. Wenck was, in his conclusion, talking  
24 about further investigation. Do you see that at the bottom of  
10:09AM 25 page 2, "further investigation and characterization of the



1 known and potential landfills as necessary"?

2 MR. RICHARD: Can we enlarge that?

3 THE WITNESS: Yes, I see that.

4 Q. (BY MR. RICHARD:) And again, in your experience  
10:09AM 5 with the site assessment, once hazardous materials have been  
6 identified in some areas of a site, does a site assessment  
7 consultant or environmental specialist typically recommend  
8 further investigation?

9 MR. BLUM: Vague as to when.

10:10AM 10 THE COURT: Rephrase.

11 MR. RICHARD: Sure.

12 Q. (BY MR. RICHARD:) And you were involved in site  
13 investigations back in the '80s, sir?

14 A. I was.

10:10AM 15 Q. I don't mean -- okay.

16 And at that time, say, 1987, in your experience,  
17 when a site investigation of a large thousand-acre site  
18 identified hazardous materials in some landfills, would the  
19 site assessment continue further investigation and  
10:10AM 20 characterization of the site?

21 A. Yes. As I described the process yesterday, this  
22 would be one step. It would -- an important step. It found  
23 somewhere on the property where there was waste disposed. The  
24 next step is to figure out the extent of that and what impact  
10:10AM 25 it has had beyond the boundaries of the landfill on soil and

1 groundwater and other environmental media.

2 Q. And this memo from Mr. -- or from Wenck Associates  
3 goes on to refer to something called -- "if the facility is to  
4 be closed clean." Do you see that? "The removal of all" --  
10:11AM 5 "The removal of all known landfill wastes is necessary if the  
6 facility is to be closed clean," period, close quote.

7 Do you have any experience with clean closures under  
8 RCRA?

9 MR. BLUM: Again -- never mind.

10:11AM 10 THE WITNESS: I do.

11 Q. (BY MR. RICHARD:) And can you explain for the jury  
12 what a -- what it means to have a clean closure?

13 MR. BLUM: Vague as to when.

14 THE COURT: Please clarify.

10:11AM 15 MR. RICHARD: Sure.

16 Q. (BY MR. RICHARD:) In your experience, going back  
17 over 40 years, Dr. Hughto, beginning with your -- well, can you  
18 tell us in this time frame, in the '80s, say, 1987, in general  
19 what it meant to obtain a clean closure under RCRA?

10:12AM 20 A. Again, we are going back quite a few years here. My  
21 recollection would be the clean closure for landfill material  
22 under RCRA would have been to remove the landfill material.

23 Q. Okay.

24 A. And there were provisions of what would happen if  
10:12AM 25 you couldn't remove it all for whatever reason.

1 Q. And can -- he goes on to say, "When the RFA," he's  
2 referring to the RCRA facility assessment mentioned up above --  
3 in the middle of this paragraph, in his conclusion of  
4 Exhibit 445, "When the RFA identifies landfills left on the  
10:12AM 5 property and if the percentages of hazardous waste found so far  
6 are indicative of the remaining known and unknown landfills,  
7 those landfills will be treated as hazardous wastes and will be  
8 declared RCRA units," period, close quote.

9 Can you explain what a RCRA unit is, sir, or was at  
10:13AM 10 this time?

11 A. Well, a RCRA unit is a location portion of a site or  
12 operation. I believe he's talking about a solid waste  
13 management unit that was discussed yesterday, had the  
14 abbreviations SWMUs, that is -- we see an isolated operation or  
10:13AM 15 condition of -- that may have that environmental impact.

16 Q. And based on the materials you reviewed in this case  
17 for this site and based on your experience, was it a reasonable  
18 conclusion to reach that as Mr. -- as the memo from  
19 Wenck Associates states, quote, "If the cost of characterizing  
10:14AM 20 the present RCRA units on the facilities is any indication, the  
21 cost of the EPA required investigation of landfills will be  
22 tremendous," period, close quote.

23 In your experience, was that a reasonable assessment  
24 at the time, that the costs of an investigation, if required by  
10:14AM 25 the EPA, would be tremendous?

1           A.     I -- I can tell you what my experience is, but I  
2     don't know what he means by "tremendous." But it would be  
3     expensive.

10:14AM 4           MR. BLUM: I would move -- he's answered the  
5     question, Your Honor.

6           THE COURT: Remember the --

7           MR. BLUM: No, he doesn't know what he meant.

8           THE COURT: Mr. Blum, remember what I said.  
9     Objection, legal grounds, the --

10:14AM 10          MR. BLUM: Beyond the scope of the question.

11          THE COURT: The objection is sustained. His  
12     response is stricken.

13          MR. RICHARD: Sure. Let me rephrase.

14          Q.     (BY MR. RICHARD:) In your experience, could EPA  
10:15AM 15     investigations of a site of this magnitude end up costing quite  
16     a bit?

17          A.     My experience, if EPA took the lead on investigating  
18     this site, that it would have been very experience, as I  
19     consider very expensive to perform the monitoring.

10:15AM 20          Q.     And in your experience, if the EPA asked questions  
21     about a facility's current and past landfills, is this the type  
22     of information that you would expect to be provided to the EPA  
23     from the consultant, that is, findings of hazardous waste in  
24     numerous landfills?

10:15AM 25          A.     I don't understand the question.

1 Q. Sure.

2 Should Whittaker have shared this information with  
3 the EPA in response to the EPA's questions?

4 A. Which EPA question are you referring to?

10:16AM 5 Q. Sure.

6 Are you familiar with Part A application?

7 A. You said Part A application?

8 Q. Yes.

9 A. Yes.

10:16AM 10 Q. And in general, can you explain what that is?

11 A. It is a RCRA applicant, somebody's going to enter  
12 the RCRA program because they own or operate a facility subject  
13 to the RCRA regulations, initiates that process by filling out  
14 what's -- it's an EPA form called Part A, which they identify  
10:16AM 15 the types of waste materials that are handled, generated on a  
16 property.

17 Q. Okay. And just to move this along. I'm just going  
18 to ask you to assume that Mr. Sorsher talked about requests  
19 from 1988 from the EPA about current and past landfills.

10:16AM 20 Well, let me ask you this. You're familiar with the  
21 Part A application process that sometimes additional questions  
22 from the -- the regulators can be put to the owner or operator  
23 of the site?

24 A. Yes.

10:17AM 25 Q. Okay. And my question is: Would you expect that,

1 in response to questions and the Part A process, questions from  
2 the EPA about landfills and hazardous substances, that the  
3 information we've just been talking about would be the type of  
4 information that would be provided to the EPA in the course of  
5 that process?

10:17AM

6 MR. BLUM: Speculation. No foundation.

7 THE COURT: Sustained as vague.

8 MR. RICHARD: Fair enough, Your Honor.

9 Q. (BY MR. RICHARD:) Let me -- let me have you look at  
10 page 5 of Exhibit 445 so we can specifically review the  
11 information regarding landfills from 1987. Do you see the  
12 reference there to "landfills that have been removed"?

10:17AM

13 A. I do.

14 Q. And did you see documentation that Whittaker had  
15 notified the State or the EPA, before it removed those  
16 landfills, that it was intending to do so?

10:18AM

17 A. You mean on this page?

18 Q. In any of the materials you reviewed in this case,  
19 do you know whether those landfills were -- let's take 314,  
20 Canyon landfill. Do you know whether that was closed with  
21 advice and knowledge of the EPA?

10:18AM

22 A. It's my understanding from this memo that these --  
23 this is the list of those that had been -- at the time this  
24 memo was prepared, there were different categories. And it  
25 says some of the landfills had been removed and that this was

10:18AM

1 the listing of those that had been removed during the  
2 investigation process.

3 Q. Okay. And do you know whether this memo that we've  
4 been talking about was provided to the EPA before 1991?

10:19AM 5 A. It -- it's my understanding that this memo had not  
6 been provided to DTSC until 1991.

7 Q. And did that impact -- that fact impact any of the  
8 work you did in this case?

9 A. Yes.

10:19AM 10 Q. And can you explain that?

11 A. That the -- my opinion that the -- that Whittaker  
12 was not forthcoming and did not fully disclose their waste  
13 disposal practices to the regulatory agencies I believe is  
14 supported by information in this exhibit.

10:19AM 15 Q. Okay. And then under landfills investigated but not  
16 removed as of June 1987, we see several landfills identified,  
17 beginning with the burn pit. And my question is: What -- in  
18 general, what constitutes, in your experience, a landfill?

19 MR. BLUM: Objection, Your Honor. It is vague as to  
10:20AM 20 what is meant in this document.

21 THE COURT: Rephrase your question.

22 MR. RICHARD: Sure.

23 Q. (BY MR. RICHARD:) Setting aside this document, sir,  
24 in your experience, are you familiar with the term "landfill"?

10:20AM 25 A. I am.

1 Q. Okay. And in your experience, what does that term  
2 mean to environmental professionals such as yourself?

3 MR. BLUM: Vague as to time, Your Honor.

4 THE COURT: Overruled.

10:20AM 5 You can answer.

6 THE WITNESS: I addressed this yesterday early on  
7 that -- my experience with landfills. And my definition, if  
8 you will, would be it's an area where waste materials or  
9 residual materials are stored -- or it was -- not stored but  
10 disposed.

10:21AM

11 Q. (BY MR. RICHARD:) Okay. And so based on the  
12 materials you reviewed in this case, including the data that  
13 you've talked to us about, were these landfills based on your  
14 understanding of the word "landfill," the burn pit, the  
15 Hula Bowl, East Fork?

10:21AM

16 A. Are you asking if I think these five items here in  
17 that category would be landfills in my definition?

18 Q. Yes, sir.

19 A. Yes.

10:21AM

20 Q. Okay. And I wanted to ask you about the East Fork  
21 landfill. If you can turn to page 6 of Exhibit 445.

22 Do you see the reference to East Fork?

23 A. Yes.

24 Q. And then under Comments, "This landfill was one of  
25 the highest ratio of waste to fill-soil of those investigated.

10:22AM



1 It is estimated that up to 85 percent of the material is waste.  
2 Some organic vapors were detected in the initial cut."

3 What does that tell us? Why would that information  
4 be important to you in the work you did in this case?

10:22AM

5 A. What it tells us is there's a landfill that's  
6 30,000 cubic yards, pretty good size piece of earth, and that  
7 it is -- that 85 percent of it, roughly, is waste material,  
8 which is quite a bit of waste material.

10:22AM

9 Just as a reference, an 18-wheel dump truck is about  
10 20 cubic yards. And here, we have 85 percent of 30,000. So  
11 it's a -- it's a lot of stuff.

10:23AM

12 And that we have a large volume of material that was  
13 landfilled. And during the investigation, the investigators  
14 measured organic vapors. There are machines you can take in  
15 the field when you're doing investigations that you can hold in  
16 areas where you're excavating or performing borings or  
17 collecting soil samples to evaluate -- that will measure  
18 organic contaminants like PCE and TCE and other organics and  
19 that it appears that -- that that occurred during the  
20 investigation of the East Fork landfill.

10:23AM

21 Q. And with respect to samples, when you say samples  
22 are taken, generally what does that refer to when you're  
23 talking about soil? What happens to those samples?

24 A. What happens after you collect them?

10:23AM

25 Q. Yes.

1           A.     Samples -- soil samples in general -- to understand  
2     the purpose for collecting them but, generally speaking, a  
3     couple of things happen.

4                     One is you do a physical characterization. You say,  
10:24AM 5     oh, this is sand, this is clay, glacial till, whatever kind of  
6     soil it happens to be. You do a physical examination. You say  
7     what is it? Is this just soil? Or is it soil with waste  
8     material in it? Is it domestic trash? Whatever it is. And  
9     then frequently the sample would be sent to a laboratory for  
10:24AM 10    analysis.

11           Q.     Okay. And so if you could look at the next page,  
12     page 8 of Exhibit 445, talking about another one of these  
13     areas. This is referred to as Water Tower 2, 20,000 cubic  
14     yards. Do you see that?

10:24AM 15           A.     I do.

16           Q.     And my question is: What's an OVA? It says --  
17     after the Volume, it says OVA, no readings taken yet.

18           A.     An OVA, that's the abbreviation for an organic vapor  
19     analyzer. It's the detection device that I just mentioned  
10:25AM 20     where you can in realtime measure organic contents of certain  
21     organic compounds in vapors or in the air.

22           Q.     Okay. And under the Comments, like the third  
23     sentence says, quote, "Some intact drums were discovered" --  
24     well, first let's begin. There were three backhoe trenches dug  
10:25AM 25     in this landfill. Are you familiar with what a backhoe trench

1 is?

2 A. Yes.

3 Q. What does it mean to dig a backhoe trench?

10:25AM 4 A. A backhoe trench is a common way of characterizing a  
5 landfill area or areas of soil contamination or suspected soil  
6 contamination. And it's pretty simple. It's just taking a  
7 backhoe and excavating a trench through the area, sometimes  
8 multiple trenches in different directions, to try to get a  
9 handle on -- on -- or to be able to characterize what it is  
10:26AM 10 your objective is in that particular investigation.

11 Often it's just to figure out the extent of the  
12 waste. It's a pretty -- pretty straightforward way to figure  
13 out the extent of, say, a landfill area because you can dig a  
14 hole and look and see.

10:26AM 15 Q. And in this case, he's describing that when they dug  
16 those trenches with three backhoes -- or I'm sorry, three  
17 trenches with a backhoe, quote, "Some intact drums were  
18 discovered." Do you see that?

19 A. I do.

10:26AM 20 Q. Then what does that tell us?

21 A. Well, in the course of digging these trenches, they  
22 encountered intact drums, drums that still had their shape,  
23 didn't -- hadn't deteriorated or rusted through.

24 Q. And then he concludes, after he talks about the  
10:26AM 25 large surface material was removed and the trenches were then

1 filled back in, "no sampling of materials is planned." Do you  
2 see that?

3 A. I do.

4 Q. And does that indicate that in this area they  
10:27AM 5 decided not to take any samples and have those tested further?

6 A. The sentence before that says, "It is planned to try  
7 some more backhoe pits and take OVA readings." So they're  
8 going to continue the -- the trenches and take OVA readings.

9 Right now, it says "No sampling of materials is planned." That  
10:27AM 10 additional excavation in performing the OVA readings may change  
11 that.

12 Q. Okay. So Wenck in June 1987, is it fair to say  
13 they're in the middle of a site assessment?

14 A. Yes.

10:27AM 15 Q. And they have further activities planned?

16 A. Yes.

17 Q. Did you see any evidence that the executives of  
18 Whittaker decided to pare back, cut back on the scope of that  
19 site assessment?

10:28AM 20 A. I saw documentation of paring back on certain  
21 activities related to landfills. I'm not sure it was the  
22 investigation.

23 Q. Okay.

24 THE COURT: We're actually going to break at this  
10:28AM 25 point.

1 So it is now almost 10:30. We're going to break  
2 until 10:45.

3 Please remember not to speak about the case, the  
4 people, or the subject matter involved. Continue to keep an  
10:28AM 5 open mind.

6 Leave your notebooks behind, and Mr. Cruz will  
7 direct you.

8 See you back in 15 or so minutes.

9 THE COURTROOM DEPUTY: All rise for the jury,  
10:28AM 10 please.

11 (Out of the presence of the jury:)

12 THE COURT: And please be seated.

13 And, Dr. Hughto, I'm directing that you leave the  
14 courtroom at this time, please.

10:29AM 15 THE WITNESS: Okay.

16 THE COURT: And I do want to -- I do want to return  
17 to the issue of the findings and conclusions just to make sure  
18 I understand better the scope of the issue.

19 And so -- and, Mr. Blum, you can take to the  
10:29AM 20 lectern, please.

21 I've had a chance to review the filing this morning  
22 fairly briefly, as I've been trying to pay attention to the  
23 evidence. And there are some highlighted portions of the  
24 findings. And I don't intend to go through each of them. Time  
10:30AM 25 won't permit, and we do need to take a break, including the

1 Court.

2 So, first of all, with regard to references to  
3 depositions and declarations and other evidence in the  
4 findings, do you have any of that information? And I'm  
10:30AM 5 referring to the cited evidence where there are highlighted  
6 information that apparently you intend to cross-examine  
7 Dr. Hughto on.

8 MR. BLUM: I don't think we have -- most of it we do  
9 not -- overwhelming amount we do not have.

10:31AM 10 THE COURT: All right. So, first of all, fairly  
11 clearly you are free to use the actual evidence. And I will  
12 hear from Mr. Richard in a moment in case there is disputes.

13 But as a first-level proposition is that there's  
14 citation to evidence. And so where there's citation to  
10:31AM 15 evidence, rely upon the evidence where you have the evidence.

16 Second level is -- and maybe this should have come  
17 first -- is that you're certainly free, as I suspect you would  
18 do, to distinguish between not having seen evidence or  
19 documents versus the conclusion to be drawn that that evidence  
10:31AM 20 doesn't or never existed or was somehow improperly destroyed,  
21 which I did not intend to foreclose. And that, it seems to me,  
22 largely deals with the issue that you have raised with the  
23 Court.

24 Were you intending to go through the actual findings  
10:32AM 25 themselves and refer to them as findings by a previous judge?

1 MR. BLUM: No. Your Honor, what I wanted to do,  
2 because he did not -- first of all, it's unclear whether he's  
3 seen the findings. He testified in his deposition that he was  
4 given all of the documents relied upon by Mr. Dawson, which --  
10:32AM 5 which would have included the findings, but then the findings  
6 aren't listed in his rebuttal report on things that he's  
7 reviewed. So -- and he wasn't sure one way or another whether  
8 or not he's seen them. He said they were familiar, but he  
9 wasn't sure.

10:32AM 10 So to get around that issue, we do know that he has  
11 seen citations from the findings when he reviewed Mr. Dawson's  
12 report which quoted certain portions. And I was going to limit  
13 my examination of him to things that I know he's seen, which  
14 would be those portions cited in Mr. Dawson's report.

10:33AM 15 THE COURT: Do you intend to go through all of these  
16 highlighted portions of the findings and conclusions?

17 MR. BLUM: Your Honor, no. And the only caveat I  
18 would make is if he changes his mind and says, yes, I've seen  
19 them and I relied on them. Then I would go over most of them  
10:33AM 20 but not all of them because a lot of them were done just  
21 because better include it than not because I know I would only  
22 be limited to what I stated.

23 THE COURT: Tell me why you need to do more than  
24 what I have suggested, which is to just clarify with Dr. Hughto  
10:33AM 25 that when he says he hasn't seen it, it doesn't mean it doesn't

1 exist, it never existed, it just hasn't been presented to him,  
2 and then asking further about how long ago these documents  
3 would have existed, assuming they do exist? I haven't  
4 articulated that properly, but you get the point.

10:34AM

5 MR. BLUM: I do, Your Honor.

6 THE COURT: And so I've not heard Dr. Hughto really  
7 step very far to say that these documents clearly never  
8 existed. I mean, he's been fairly careful, it seems to me, to  
9 say he has not been provided with, he has not seen. And it  
10 would appear to me that there is a fair response to that along  
11 the lines that I have suggested.

10:34AM

12 So tell me why you need more.

13 MR. BLUM: Your Honor, for what the -- for what the  
14 testimony is as of now, I don't. I'm going to be real frank  
15 with the Court.

10:34AM

16 But the part where -- this was in his report -- and  
17 I'm assuming it's going to come in this afternoon -- is when he  
18 starts talking about the contracts and whether or not  
19 Whittaker, in performing the services, performed it consistent  
20 with the DOD contracts, for instance, the burn pits.

10:35AM

21 THE COURT: Let me just stop this because we're  
22 running a little late into the -- into the recess, and I may  
23 have a procedural way to address the concern that you have.

24 So right now, it appears to me that you're  
25 satisfied, based upon what has come in so far, that you could

10:35AM



1 handle it at the general level that I just suggested.

2 MR. BLUM: Yes, sir.

3 THE COURT: If it turns out that in the afternoon

4 that Dr. Hughto takes a step further and goes into substance

10:35AM

5 and suggests that certain documents don't exist when there's

6 reason to believe that they do exist, I will give you an

7 opportunity to persuade the Court that I should allow you to --

8 I'll allow in certain evidence through your own expert. I'm

9 assuming you have an expert, Dr. Hokkanen or someone else.

10:36AM

10 MR. BLUM: Mr. Dawson.

11 THE COURT: Mr. Dawson, rather, who would be able to

12 sponsor this type of information.

13 MR. BLUM: Yes, sir.

14 THE COURT: All right. Is there any reason why that

10:36AM

15 procedure would prejudice you?

16 MR. BLUM: Nope.

17 THE COURT: All right. Mr. Blum? I'm sorry. I'm

18 looking at you, Mr. Richard. Mr. Richard.

19 MR. RICHARD: We're headed down a dangerous path

10:36AM

20 here because --

21 THE COURT: Before we go into substance, I'm just

22 asking whether procedurally you -- I'm assuming you have no

23 objection to him -- in my view, properly cross-examining

24 Dr. Hughto about what he means when he says that he hasn't seen

10:36AM

25 documents.

1 MR. RICHARD: Of course, Your Honor.

2 The mischief here is twofold. One, Your Honor's  
3 made rulings on Mr. Dawson in the scope of his testimony as to  
4 his first two opinions. What I'm hearing is that Whittaker's  
10:36AM 5 going to attempt to resuscitate those opinions by showing the  
6 excluded portions of Mr. Dawson's report.

7 THE COURT: No, let me just stop you because maybe  
8 I -- I wasn't clear or maybe I'm not understanding you.

9 I'm not suggesting to you that I'm going to allow  
10:37AM 10 any of this evidence in of the findings and conclusions. I've  
11 simply given Mr. Blum a procedural avenue in the event that, in  
12 my view, Dr. Hughto has essentially opened the door where he  
13 has suggested something that is factually not true and that  
14 is -- can be ascertained from the findings and conclusions.

10:37AM 15 You'll have an opportunity to persuade me that  
16 that's not the case or that, even if it is, potentially there's  
17 a 403 reason why I should nonetheless stand pat and keep the  
18 findings and the conclusions out.

19 So you're not prejudiced, it seems to me. I'm just  
10:37AM 20 simply setting up a process in the event that this comes out.

21 I would suggest to you in the short amount of time  
22 remaining that you perhaps have a conversation with Dr. Hughto  
23 about this issue to make sure that he doesn't inadvertently  
24 walk into something that no one intended for him to walk into.

10:38AM 25 We're in recess until 10:45.

1 (Break taken.)

2 (In the presence of the jury:)

3 THE COURT: We are back on the record in the trial  
4 matter with all present who were present before the break,  
10:50AM 5 including the jury, and Dr. Hughto who remains on the witness  
6 stand under oath.

7 And you may continue with your direct examination.

8 MR. RICHARD: Thank you very much, Your Honor.

9 Q. (BY MR. RICHARD:) I would like to show you, sir,

10:51AM 10 Exhibit 448. It's been previously stipulated to.

11 (Exhibit 448 for identification.)

12 Q. (BY MR. RICHARD:) And this is a memo from  
13 Christopher F. Thompson. Do you see that up top?

14 MR. RICHARD: Can you enlarge that?

10:51AM 15 THE WITNESS: I do.

16 Q. (BY MR. RICHARD:) And who is Mr. Thompson? Who is  
17 he with?

18 A. Whittaker.

19 Q. Do you think he was with an outside consulting firm,  
10:51AM 20 sir?

21 A. Oh, actually, I was mistaken. He was with Wenck  
22 consultants.

23 Q. Okay. Thank you.

24 And here -- and this is one of the documents you  
10:51AM 25 reviewed in the course of your work in this case?

1 A. It is.

2 Q. And this particular document refers to a meeting of  
3 June 17th, 1987. Do you see that?

4 A. I do.

10:51AM 5 Q. And do you know who the folks are that are listed,  
6 Gordon Louttit -- do you know who that was?

7 A. I believe all four of these people are -- were  
8 Whittaker employees.

9 Q. And he says, quote, "The purpose of this meeting was  
10:52AM 10 to discuss the recently compiled estimated cost to complete  
11 closure for the Bermite facility." Do you see that?

12 A. I do.

13 Q. And then he goes on and he describes how long the  
14 meeting was and says, quote, "The net result of the meeting was  
10:52AM 15 that the total cost for the closure activities for all RCRA,  
16 non-RCRA, and other projects was pared down from a recently  
17 estimated 1.8 million to approximately \$636,000," period, close  
18 quote.

19 And my first question is: Did you see evidence as  
10:53AM 20 to whether there had been -- what it was that explained the  
21 paring down from the 1.8 million to the \$636,000?

22 A. I believe the -- the memo goes on to describe some  
23 of the proposed actions or assumptions that went into that  
24 change in the cost estimate.

10:53AM 25 Q. Okay. And let's look at some of those.

1 So the first one is to Joe. That's Joe Alibrandi.

2 Do you know who he was with -- with Whittaker?

3 A. I believe he was the president at the time.

4 Q. And it says, "Joe feels it is not necessary to sift  
10:53AM 5 the landfills to the degree we have been presently. He feels  
6 we should only remove the large obvious materials and leave the  
7 others," period, close quote.

8 And did that have any impact, those two sentences I  
9 just read, referring to something that the president of  
10:53AM 10 Whittaker was advising in June 1987? Did that have any impact  
11 on the work you did in this case?

12 A. Well, it could be one explanation of how the -- if  
13 this was to be implemented, how the cost would change. You  
14 will no longer be sifting landfills and dealing with all  
10:54AM 15 material. It's just getting rid of the large materials.

16 Q. And from the perspective of an environmental  
17 professional, would that present an issue?

18 A. Yes, it would.

19 Q. And why is that?

10:54AM 20 A. The -- what -- the purpose for being out there is to  
21 identify potential sources of contamination and the extent of  
22 contamination and to mitigate the damages that the sources  
23 would -- would cause.

24 If you only take out the big stuff and you leave the  
10:54AM 25 rest of the material, the rest of the material could be waste

1 material. It could be highly contaminated and could continue  
2 to cause soil and groundwater contamination even though you got  
3 rid of the large obvious materials.

10:55AM 4 Q. Okay. And would that approach have an impact on a  
5 complete characterization of the extent of contamination at a  
6 site?

7 MR. BLUM: Objection. Speculation.

8 THE COURT: Sustained as phrased.

9 Q. (BY MR. RICHARD:) Okay. Thank you.  
10:55AM 10 What does it mean to have a complete  
11 characterization of a site of suspected and actual hazardous  
12 contamination? What does the word "characterization" mean in  
13 that context?

14 A. Complete -- are you reading from the document?

10:55AM 15 Q. No, I'm just asking you.

16 A. General?

17 A complete characterization would be performing the  
18 activities necessary to fully characterize the degree and  
19 extent of contamination and the sources of the contamination  
10:55AM 20 and the natural environmental factors that -- like the types of  
21 soils you have and depths to groundwater, flow of groundwater,  
22 things -- the natural environment that could be impacted and  
23 would be necessary to characterize the impacts.

24 Q. And at a site where Wenck Associates in a memo dated  
10:56AM 25 the same date, June 22nd, 1987, identified known and unknown

1 landfills with hazardous substances, would an approach in that  
2 context, some known landfills, some unknown landfills but the  
3 detection of hazardous substances, would the approach described  
4 by the president of Whittaker be consistent with a complete  
10:56AM 5 characterization of the site as you've just described?

6 MR. BLUM: Vague. Speculative.

7 THE COURT: Overruled.

8 You may answer.

9 THE WITNESS: You could characterize the site and

10:56AM 10 then change -- what I understand that Joe is recommending here  
11 is only taking, like, big things and leaving a lot of waste  
12 behind. You could characterize that, meaning define the degree  
13 and extent and understand what it is, and still leave it there.  
14 So you could characterize it but not mitigate the damage.

10:57AM 15 Q. (BY MR. RICHARD:) I see.

16 And did you see evidence that after June 22, 1987,  
17 they attempted to mitigate costs? Well, strike that.

18 I'll refer you to paragraph 2 where there's a  
19 reference to the first sentence. "Joe feels that it is not  
10:57AM 20 necessary to remove the quantity of material that we have been  
21 removing from the different landfills. He feels we should  
22 investigate with the backhoe the landfills the way in which we  
23 have been doing, take photographs of the materials that is  
24 found, remove the main large materials and any drums or  
10:57AM 25 suspected hazardous materials, take OVA," et cetera, "and

1 readings of the backhoe pits that are dug and, once all this is  
2 done, fill those holes back in and then leave the landfill as  
3 is."

4 Would leaving the landfill as is remove any  
10:58AM 5 remaining hazardous substances that were not just large  
6 materials?

7 A. Well, it's -- if you go back to the -- earlier in  
8 the sentence, it says "remove the main large material and any  
9 drums or suspected hazardous materials" and then just take OVA  
10:58AM 10 readings and that would be the extent of the investigatory  
11 aspect of it.

12 That would -- if -- if that were implemented, they  
13 would remove suspected hazardous materials. They would not  
14 have collected any samples to understand whether there was  
10:58AM 15 contamination in the remaining materials that were there, if --  
16 if the suspected hazardous materials actually were hazardous  
17 materials or if they impacted the surrounding soils or  
18 groundwater. So it would -- this approach would be incomplete.

19 Q. And without further testing, how would Whittaker  
10:59AM 20 know at this time whether there had been contamination of the  
21 groundwater beneath their landfills?

22 A. If -- if the plan -- if the investigation were to be  
23 conducted as is described in the yellow highlighting on the  
24 screen right now, they could not -- they would not know whether  
10:59AM 25 there was an impact to groundwater or not.



1 Q. Okay. He goes on to say, "He," referring to Joe,  
2 "feels that leaving the moving around of the landfill to the  
3 developer is the best way not to incur further costs with these  
4 landfills."

10:59AM

5 Was that reference or the repeated references to  
6 avoiding further costs significant to you in the work you did  
7 in this case?

8 A. Yes.

9 Q. And why is that?

11:00AM

10 A. Oh, it -- it -- it appears that Whittaker,  
11 Whittaker's representatives, were very conscious of the costs  
12 and -- and wanted to take measures to minimize what it was  
13 going to cost to investigate and remediate the site.

14 Q. And it goes on in that same paragraph, "He  
15 recognizes the fact that Whittaker would have some liability.  
16 When asked about these possible costs, Joe felt certain that  
17 there will be some costs associated with these landfills at a  
18 later date but did not seem too concerned about them. He did  
19 not seem concerned when told that the costs could run many  
20 times what they are at present," period, close quote.

11:00AM

21 And in your experience, is there a difference  
22 between cleaning up the costs -- cleaning up contamination  
23 early as opposed to waiting until a later date?

24 A. Yes.

11:01AM

25 Q. Can you explain that?

1           A.     Yes.   The -- by leaving waste behind, it has the  
2     opportunity to migrate in the environment, which would increase  
3     the extent of contamination, which could -- if it needed to be  
4     cleaned up, it increases the -- the complexity and the scope of  
11:01AM 5     a -- of the engineering project to be required to either  
6     mitigate the groundwater contamination or whatever increase in  
7     migration, whatever contamination that increase in migration  
8     costs.

9           And also, if part of the solution was to excavate  
11:01AM 10    those source materials and dispose of them, over time -- my  
11    experience has been the cost of doing that has not decreased  
12    over time.   It has increased.

13           And with the migration, if you have a source area  
14    with the migration I was describing -- actually, the source  
11:02AM 15    area is bigger.   So if you're going to excavate a source area  
16    now versus five years from now, it would probably be larger  
17    five years from now.   So it would involve more excavation.

18           Q.     Okay.   We talked a bit before the break about  
19    whether you had seen any notices of violations from either DTSC  
11:02AM 20    or the EPA in this time frame.   Do you have Exhibit 382 in your  
21    binder?   We're not going to publish this just yet.

22           A.     I do have it.

23           Q.     And is this one of the documents you reviewed in the  
24    course of your work in this case?

11:02AM 25           A.     It is.

1 Q. And in general, can you tell us what this is?

2 A. It's from the -- from the State of California to  
3 Mr. Glen Abdune-Nur of Whittaker. And it's a report of  
4 violations and a schedule for compliance that the State is  
11:03AM 5 dictating.

6 Q. And this is July 31st, 1990. And --

7 A. Yes.

8 Q. In general, at that time was Whittaker notified that  
9 its closure of the 317 surface impoundment that we had  
11:03AM 10 discussed earlier today was not done adequately and was a  
11 violation?

12 A. Yes.

13 Q. And does it further indicate that Whittaker was  
14 provided notice that -- in connection with that violation for  
11:03AM 15 the surface impoundment at Building 317, that there were  
16 volatile organic chemicals, among other chemicals, with the  
17 potential to move to -- from the ground to groundwater?

18 A. Yes. That condition did exist in the 317 area.

19 Q. Okay. And you talked about that earlier in  
11:04AM 20 connection with the memo from eight years earlier, 1982; is  
21 that correct?

22 A. I did.

23 Q. Okay. And then there's a reference under Count 4 to  
24 the failure to install monitoring wells. Do you see that?

11:04AM 25 A. I do.

1 Q. And is that count of the violation consistent with  
2 what you'd described earlier as being required in terms of  
3 monitoring wells?

4 A. Yes.

11:04AM

5 MR. RICHARD: Your Honor, I just want to reserve my  
6 right. We would move this into evidence, and so perhaps we can  
7 return back to this. I don't want to take our time now.

8 THE COURT: Is there an objection?

9 MR. BLUM: Some parts need to be redacted,

11:04AM

10 Your Honor.

11 THE COURT: All right. The Court is going to  
12 receive it, subject to redaction that the parties have a meet  
13 and confer about.

14 (Exhibit 382 received into evidence.)

11:05AM

15 MR. RICHARD: Okay. Thank you, Your Honor.

16 Q. (BY MR. RICHARD:) Moving on to Exhibit 1 -- so  
17 you've told us about a notice -- a report of violation from  
18 '86, the one from 1990. Did you review other materials from  
19 the regulators to Whittaker Corporation?

11:05AM

20 A. Yes.

21 Q. And did one of those materials include something  
22 called Imminent and Substantial Endangerment Determination and  
23 Order and Remedial Action Order?

24 A. Yes.

11:05AM

25 MR. RICHARD: And again, we have a stipulation,

1 Your Honor, but there will be portions that will be edited  
2 before its final submission to the jury.

3 THE COURT: All right. And, ladies and gentlemen,  
4 let me just explain to you. When I'm referring to redactions  
11:05AM 5 or edits, what that means is that you will receive certain  
6 documents where there will be blacked-out portions of the  
7 document. And the reason they are blacked out is because I  
8 have to make evidentiary rulings on a whole host of things,  
9 including whether it's relevant.

11:06AM 10 And so you should ignore, if you see a redaction,  
11 not only will you not see it but ignore why the Court may have  
12 redacted it. Just as you see me making evidentiary rulings,  
13 that's essentially what I'm doing if there's a dispute. And  
14 sometimes the parties don't have a dispute that it's not  
11:06AM 15 relevant or what have you.

16 All right. Please continue.

17 MR. RICHARD: Thank you very much, Your Honor.

18 So may we publish the first page of Exhibit 1 to the  
19 jury.

11:06AM 20 (Exhibit 1 received into evidence.)

21 Q. (BY MR. RICHARD:) So this is an order from 2002  
22 that you reviewed in the course of your work in this case?

23 A. It is.

24 Q. And can you explain to us in what ways, if any, this  
11:06AM 25 order from the California Environmental Protection Agency,

1 Department of Toxic Substances Control, impacted the work you  
2 did?

3 A. Yes. This is an order, as it says in the title,  
4 from the State to Whittaker Corporation related to the  
11:07AM 5 Whittaker-Bermite facility. It states -- and I'm going to from  
6 memory say that it states that there may be an imminent and  
7 substantial endangerment as a result of the contamination  
8 conditions on the property.

9 And for my purposes in reviewing this, the date,  
11:07AM 10 being 2002, is important because, again, this is 20 years after  
11 the -- the discussions and the correspondence about whether to  
12 put in the first monitoring wells is going on.

13 And this is the -- it's an order to conduct what's  
14 called an RIFS, which is a remedial investigation feasibility  
11:08AM 15 study, which is essentially the Superfund's version of a site  
16 assessment.

17 The remedial investigation, you figure out what the  
18 problem is, the extent and the degree, and what impact it could  
19 have to public health and the environment.

11:08AM 20 In the feasibility study, you evaluate methods for  
21 fixing, my non-technical term for fixing the problems that you  
22 discover. And the order goes on to say that you will implement  
23 the remediation to fix those problems.

24 A similar order -- there was a similar order in '95  
11:08AM 25 or '96, I forget exactly, could be '94, '95, '96, that also

1 required an RIFS and remediation of the problems. And here it  
2 is '02, and the problem still exists, the investigations  
3 haven't been completed, the remediation hasn't been performed  
4 to complete -- to mitigate the problems on the site. There's  
11:08AM 5 another order in place to conduct -- to conduct that RIFS and  
6 do the remediation as necessary at the site.

7 Q. And in your review of the order, did it address some  
8 of the same chemicals that are at issue in this case?

9 A. Yes.

11:09AM 10 Q. And can you explain that briefly?

11 A. The -- it does address perchlorate in the degreasing  
12 solvents.

13 Q. Okay. And those -- so, for example, if we look at  
14 page 9 towards the bottom of the page, bottom third of the  
11:09AM 15 page, "In 1996," do you see that?

16 A. Yes.

17 Q. And it goes on to say, "In 1996, in an attempt to  
18 remove metallic debris from the Burn Valley so that a  
19 geophysical survey and sampling could be performed..." So  
11:09AM 20 1996, 16 years after some of those memos we looked at from  
21 1980, there's an investigation.

22 Can you explain the data with respect to the  
23 chemicals at issue in this case, that this paragraph of this  
24 Imminent and Substantial Endangerment Determination and Order  
11:10AM 25 is describing?

1           A.     Yes.   So the sentence goes on, it says, "Respondent  
2 uncovered soil contaminated with first nitrate." Nitrate is  
3 actually naturally occurring. It is an ion that was -- was a  
4 component of some of the manufacturing conducted on the site.

11:10AM

5           The next is phosphorous, which is misspelled here,  
6 but it's -- it also is a naturally occurring metal that was a  
7 component in the -- in some of the manufacturing, heavy metals.

11:11AM

8 Heavy metals include a wide variety of metals. They didn't  
9 specify here which, but there were heavy metals that became  
10 waste products as a result of the manufacturing at the site.

11           The next one is TCE, which we talked about, the  
12 degreasing solvent TCE. The concentrations there where it's  
13 110 to 41,000 milligrams per kilogram. Some perspective,  
14 41,000 is about 4 percent.

11:11AM

15           Q.     Is that a lot or a little, in your experience?

16           A.     That's a lot. That means you collect a soil sample,  
17 4 percent of it is TCE. It's not soil. It is 4 percent TCE,  
18 and the remainder is some other waste material.

11:11AM

19           The number here, the 41,000, is one-tenth,  
20 approximately, of the highest number I've seen from the  
21 Burn Valley area, which -- from other data collected in 1996,  
22 which -- which is -- the highest number -- I think -- I think  
23 the highest number was -- it was not ten times, but it was --  
24 it was in the 4 to 5 percent range.

11:12AM

25           It continues on, PCE, 13 to 25,000. So that would



1 be 2-and-a-half percent was PCE.

2 Q. Okay. And so just --

3 A. It goes on to mention others.

4 Q. It does.

11:12AM 5 Let me ask you in terms of -- let's talk a little  
6 bit about the data you reviewed. You mentioned CDM Smith  
7 yesterday.

8 A. I did.

9 Q. And you had worked for CDM; is that right?

11:12AM 10 A. I had worked for CDM before they acquired Smith.

11 Q. Okay. And you were there for how many years?

12 A. I was there for about seven years.

13 Q. Okay. And what was CDM Smith's role or one of their  
14 roles with respect to the Whittaker site based on the materials  
11:12AM 15 you reviewed?

16 A. CDM Smith was brought aboard to -- they're an  
17 environmental consulting and construction firm. And they were  
18 brought onboard to continue the site assessment activities, the  
19 characterization of the -- the degree and extent of

11:13AM 20 contamination, and to evaluate methods for cleaning up the  
21 contamination and actually implement the -- the cleanup in  
22 different areas of the site.

23 Q. And what was one of the ways or techniques they used  
24 to clean up portions of the site?

11:13AM 25 A. There were a number of different remediation

1 technologies applied here because of the types -- different  
2 types of contamination. But one that they didn't apply is --  
3 was soil vapor extraction, which I described yesterday.

11:13AM 4 Q. And you did. That's where you take the air out that  
5 has contamination and then more contaminated air moves in and  
6 so on and so on; is that right?

7 A. You suck out contaminated air, fresh air comes in,  
8 it becomes contaminated, and you keep sucking it until -- until  
9 you don't get any more contamination.

11:13AM 10 Q. And in your experience, is that waste material  
11 that's taken out of the ground measured in some fashion?

12 A. Yes, it is.

13 Q. Okay. And did you review reports prepared by  
14 CDM Smith that were provided to Whittaker regarding the  
11:14AM 15 measurements of the TCE and PCE and other chemicals removed  
16 from the soil at Whittaker?

17 A. I did.

18 Q. And can you just generally describe for us the --  
19 how many of those records you reviewed, how many -- and the  
11:14AM 20 dates of those reports?

21 A. Oh, I -- there are a lot of reports. There were  
22 data collection reports, there were remediation reports,  
23 there's correspondence, progress reports, reports reporting the  
24 results periodically of the remediation as it was being  
11:14AM 25 conducted, and there was actually a remediation closure report.

1 And the time frame was -- oh, it went up to -- the  
2 most recent one I have, I think, is about two years ago. And I  
3 forget exactly when it began, but it was after this order in  
4 2002.

11:15AM 5 Q. Okay. And in reviewing those reports -- and by the  
6 way, can we pull up Exhibit 429.

7 MR. RICHARD: And we -- this already has been  
8 stipulated to between the parties.

9 (Exhibit 429 received into evidence.)

11:15AM 10 Q. (BY MR. RICHARD:) Do you see the chart here, right,  
11 or you can write on the screen, I think, with your finger but  
12 not a marker. I'm not sure how that works.

13 A. I've got a laser pointer here I can use with the --  
14 it's displayed here on the easel, the same figure.

11:15AM 15 Q. Yeah, it's hard to see.

16 THE COURT: Use the screen. The jury will  
17 appreciate that since they have a screen right in front of  
18 them.

19 THE WITNESS: Okay. They may not appreciate my  
11:15AM 20 drawing, though.

21 MR. RICHARD: No jokes, Dr. Hughto. I thought I was  
22 clear on that.

23 Q. (BY MR. RICHARD:) Do you see the reference to  
24 CDM Smith? So you recognize that this chart we're looking at  
11:15AM 25 with these red blotches identified as Priority 1, 2, 3, this

1 was -- was this a document that was in one of the reports that  
2 you reviewed?

3 A. Yes.

4 Q. Okay.

11:16AM 5 A. And as source -- the source of it is on the bottom  
6 of the page.

7 Q. Okay. And so the source of this is a -- from 2013,  
8 one of those reports from Whittaker's consultants, CDM Smith?

9 A. That's correct.

11:16AM 10 Q. Okay. And can you tell us, based on your review of  
11 those reports from CDM Smith, the areas in which the TCE and  
12 PCE were found at this site?

13 A. Sure. The -- let's start with the Burn Valley. And  
14 I haven't practiced with this screen. But I'm going to draw a  
11:16AM 15 circle around this area which is -- that's the Burn Valley.  
16 And as Mr. Patrick said, they're Priority 1, 2, and 3 in the  
17 legend. This reddish color is Priority 1, which was the  
18 initial -- there are 31 locations that -- that CDM identified  
19 that may need soil vapor extraction treatment based on their  
11:17AM 20 data collection and their evaluation of the data. They  
21 prioritized them based on amount of contamination.

22 The red ones here are the Priority 1, which their  
23 plan was to implement the soil vapor extraction at the earlier  
24 time.

11:17AM 25 So this is the Burn Valley we talked about where

1 waste was taken to be burned. That little brown part in just  
2 above the red area is the East Fork landfill that we had some  
3 questions about before the break today.

4 Q. Okay. And can you identify the Hula Bowl?

11:17AM 5 A. Yes. The Hula Bowl is over here (indicating).

6 Q. And can you tell us, did -- in the reports you  
7 reviewed, did CDM Smith identify the removal of the TCE and PCE  
8 from the Hula Bowl area?

9 A. They did using the soil vapor extraction technology.

11:18AM 10 Q. Okay. Thank you.

11 And about what quantity of TCE and PCE were removed  
12 from the Hula Bowl?

13 A. My recollection is it was just short of 800 pounds.

14 Q. And from the Burn Valley, can you tell us about how  
11:18AM 15 much TCE and PCE and other VOCs were removed from that area  
16 based on the CDM Smith reports you reviewed?

17 A. Yes. It was just about 50,000 pounds.

18 Q. And then in terms of the pond at 317, in that area  
19 that we talked about, can you find that roughly on the map?

11:19AM 20 A. Yes. That's down in this area (indicating).

21 Q. Okay. And what amount of TCE, PCE -- and by the  
22 way, what was the primary -- I mean, were those the two main  
23 volatile organic compounds found in this soil vapor extraction  
24 process?

11:19AM 25 A. I'd say the majority of the -- the chemicals that

1 were analyzed or found in the vapor, they sucked out of the  
2 ground, they actually analyzed the vapor. And the vast  
3 majority of the volatile compounds were TCE and PCE.

11:19AM 4 Q. And so then down in those ponds near Building 317  
5 that we talked about earlier in those documents from 1982, what  
6 amount of TCE and PCE was removed from that area?

7 A. That -- that area was not done by CDM Smith. That  
8 area that -- the soil vapor extraction, that area was done late  
9 '80s, into the early '90s, prior to CDM Smith arriving at the  
11:20AM 10 site. And the answer is about 50,000 pounds were removed there  
11 as well.

12 Q. And did CDM Smith and the materials you reviewed  
13 identify approximately how many pounds of TCE and PCE were  
14 still in the ground and not removed?

11:20AM 15 A. My recollection is about 150,000 pounds.

16 MR. RICHARD: And I think I -- that's all I have for  
17 right now, Your Honor. I'll save the -- anything else for  
18 redirect, if necessary. Thank you.

19 THE COURT: Mr. Blum.

11:21AM 20 MR. BLUM: Your Honor, may I just have one moment,  
21 please?

22 THE COURT: Yes.

23 MR. BLUM: Your Honor, I'm going to place some  
24 exhibits at the lectern for the witness that are --

11:21AM 25 THE COURT: That's fine.

1 Mr. Blum, do you have a copy that you're able to  
2 give to the plaintiff or -- or are these just mixed in with all  
3 of the exhibits?

4 MR. BLUM: They're mixed in, Your Honor. It's  
11:22AM 5 Exhibit 1420 and 1425.

6 THE COURT: All right.

7 **CROSS-EXAMINATION**

8 BY MR. BLUM:

9 Q. Good afternoon -- it's still morning. Good morning,  
11:22AM 10 Mr. Hughto. How are you?

11 A. I'm doing fine, thank you. Good morning to you.

12 Q. And it's Dr. Hughto; correct?

13 A. It is.

14 Q. Excuse me.

11:23AM 15 Sir, you've been an expert numerous times, have you  
16 not?

17 A. Yes, I have.

18 Q. How many times?

19 A. I haven't counted the number of times. I've worked  
11:23AM 20 on thousands of different projects over the years. I've served  
21 in some sort of an expert capacity.

22 Q. And you don't do it for free, do you?

23 A. I do -- I do not do the work for free.

24 Q. Your testimony today, what's your hourly rate?

11:23AM 25 A. \$320.

1 Q. And how much time have you spent on this case?

2 A. I don't know.

3 Q. Generally, can you give me a ballpark?

4 A. No, I can't. I wouldn't -- I don't know the  
11:23AM 5 numbers, so I don't want to ballpark it.

6 Q. So you can't tell me how much you've been paid by  
7 the plaintiffs for the work you've done, can you?

8 A. I don't know off the top of my head.

9 Q. You understand as an expert that is a usual question  
11:23AM 10 that is asked by the opposing counsel, is it not?

11 A. It's a question I've been asked before.

12 Q. Knowing that the question was going to be asked, is  
13 there a reason why you don't know the answer?

14 A. I never said I knew it was going to be asked.

11:24AM 15 Q. In your prior occasions, it's been asked of you, has  
16 it not?

17 A. What I said was it has been asked of me before.

18 Q. And knowing that it has been asked of you before, is  
19 there a reason why you don't know the answer?

11:24AM 20 A. A lot of things have been asked of me over the years  
21 in many, many cases. I didn't bring answers to all of those  
22 questions with me today by memory. I'm here to answer the  
23 questions you ask me today.

24 Q. Is it correct, sir, that the reason that you don't  
11:24AM 25 know is because that's not a piece of information you want the



1 jury to have?

2 A. Absolutely not.

3 Q. Because that would not be an act of a scientist;  
4 correct?

11:24AM 5 A. Telling the jury would not be an act of a scientist?

6 Q. Purposely not having information in order to benefit  
7 you would not be the act of a scientist, would it not --  
8 correct? Is that a correct statement?

9 THE COURT: The Court's going to ask you to move on  
11:25AM 10 to another question, please.

11 Q. (BY MR. BLUM:) In testifying today, do you see  
12 yourself as a paid expert for the plaintiff or a scientist?

13 A. I am a scientist who's serving as an expert for the  
14 plaintiff.

11:25AM 15 Q. Now, as a scientist, is it your obligation to look  
16 at all of the data without prejudice or bias, that it might  
17 benefit the client that hires you?

18 A. It is my role or my responsibility to my client to  
19 evaluate the information I'm provided without bias, which is  
11:25AM 20 what I do.

21 Q. So you purposely would not seek information -- let  
22 me ask it again. It would be correct that as a scientist, you  
23 would not ignore information simply because it would benefit  
24 Whittaker; correct?

11:25AM 25 A. I would not do that.

1 Q. And, for instance, you would make sure that in order  
2 to reach your opinions, that there has been an exhaustive  
3 search for relevant information; correct?

4 A. By whom?

11:26AM

5 Q. Well, would it be correct, sir, that you are not  
6 able to reach a scientific conclusion until you have exhausted  
7 the sources of information?

8 A. When I reach a scientific conclusion, I do it based  
9 on the information that I have.

11:26AM

10 Q. Okay. Do you recall that you were deposed in this  
11 case?

12 A. I do recall that.

13 Q. And do you recall you were asked a similar question  
14 and you testified that you could not reach a conclusion until  
15 you exhaust the sources of information?

11:26AM

16 A. You'd have to show me the transcript.

17 Q. All right. I'm going to do that.

18 MR. RICHARD: May I have a page and line?

19 MR. BLUM: Yeah. Give me -- I'm sorry. One second.

11:27AM

20 Page 164, lines 8 through 18.

21 MR. RICHARD: I'm sorry, what lines?

22 MR. BLUM: 8 through 18.

23 I'm sorry. That's not correct.

24 MR. RICHARD: We have no objection.

11:27AM

25 MR. BLUM: No, I'm looking at mine. I got the wrong

1 one up.

2 Here it is. Could you play it, please? 164, 8  
3 through 18.

4 (Videotaped deposition played:)

11:27AM 5 Q. Okay. So you developed the hypothesis, you  
6 gathered some data and information, and you evaluate  
7 it to develop a conclusion or an answer which is --  
8 which term would you prefer?

9 A. I would just say you would perform an  
11:28AM 10 analysis.

11 Q. Okay. And does the analysis have any  
12 conclusion to it or is it --

13 A. Once you've exhausted your sources of  
14 information and analyzed the model, yes, you can  
11:28AM 15 get some conclusion from it.

16 Q. (BY MR. BLUM:) Have you exhausted your sources of  
17 information in this case?

18 A. I have reviewed the sources of information that I  
19 have been provided and that I have obtained on my own, which  
11:28AM 20 would be mostly the information from the State website, related  
21 to the site.

22 Q. That wasn't my question, Doctor.

23 A. I'm answering the question as I understand it.

24 And I have -- I have read those reports, reviewed  
11:28AM 25 them, and rendered my judgments after doing that.

1 Q. Have you exhausted all known sources of information  
2 in this case?

3 A. All known -- known by whom?

4 Q. Known by you.

11:28AM 5 A. I have -- I've exhausted the sources -- and I think  
6 I said in the answer, the -- from the deposition, the sources  
7 that I have.

8 Q. And -- and other than what is on the website, the  
9 sources that you had is what you've been given by the  
11:29AM 10 plaintiff's attorneys; correct?

11 A. I'm just pausing to think if I had any other  
12 sources.

13 I've received most of what I have from the  
14 plaintiff's attorneys. I pulled information from the website.  
11:29AM 15 I may have found other things in Internet research, but those  
16 are the primary sources of the information I used.

17 Q. For instance, are you aware that there are --  
18 there's places where you can get aerial photographs of the site  
19 or order aerial photographs of the site?

11:29AM 20 A. Yes, I am.

21 Q. Well, did you see those aerial photographs?

22 A. I did not order aerial photographs or see them  
23 because I didn't see it as what I would gain from that exercise  
24 being critical to the -- the opinions I was asked to -- the  
11:30AM 25 topics I was asked to give opinions on.

1 Q. So as a scientist, it's okay to presume that the  
2 evidence or the material is irrelevant before you look at it?

3 A. All scientists and engineers have to make -- have to  
4 make judgments or cuts on what is looked at in doing an  
5 analysis.

11:30AM

6 I've looked at aerial photos of sites for -- that  
7 are part of the 40 years I've been doing this type of thing and  
8 know what I can get from aerial photographs and know that, when  
9 I'm rendering certain types of opinions, aerial photographs are  
10 very important.

11:30AM

11 In this case, I didn't take that next step to get  
12 the aerial photographs because I believed the information that  
13 I had and I've been testifying about and wrote the reports  
14 about was sufficient to -- to opine on the topics I was asked  
15 to opine on.

11:30AM

16 Q. Okay. So you -- you -- for instance, could an  
17 aerial photograph have shown changes at the site between the  
18 time that Whittaker operated and prior to the time Whittaker  
19 operated?

11:31AM

20 A. An aerial photograph?

21 Q. For instance, if you had an aerial photograph from  
22 1945, would you have been able to -- to at least raise some  
23 reasonable conclusions as to what activities were happening on  
24 the property in 1945?

11:31AM

25 A. It's a possibility of aerial photos, especially of

1 that vintage, of varying -- well, all aerial photos are varying  
2 quality but those -- from that vintage are certainly of lesser  
3 quality than those of succeeding decades.

4 But you can use aerial photographs to gain some  
11:31AM 5 information about activities on a site.

6 Q. But in this case, you don't know if you could  
7 because you haven't looked at them; right?

8 A. I did not -- I did not go out and solicit additional  
9 aerial photographs, no.

11:32AM 10 Q. Did you look at the files that EPA had on this  
11 property?

12 A. I did not go to EPA offices to -- to look at their  
13 files or do a FOIA request for their files. I looked at EPA  
14 records that I -- that were made available to me.

11:32AM 15 Q. By plaintiff's counsel?

16 A. I believe -- I was trying to recall if that was  
17 all -- some of the EPA correspondence may have come from  
18 their -- from the EPA website and some other came from  
19 plaintiff's counsel.

11:32AM 20 Q. Well, didn't you testify initially that the website  
21 you checked was the EnviroStor website?

22 A. I believe that's what it's called.

23 Q. And EnviroStor is the website for DTSC; correct?

24 A. Yes, it is.

11:32AM 25 Q. It's not the website for the EPA, is it?

1           A.     No. And I checked the EPA website as well and was  
2 not very successful in finding documents related to this case.

3           Q.     I thought you testified you only checked EnviroStor.  
4 Did you -- so you actually went to the EPA website?

11:33AM 5           A.     I looked at the EPA website and did searches related  
6 to this property or site.

7           Q.     Did you check the website for the Regional Water  
8 Quality Control Board?

9           A.     Oh, I -- I can't recall if I did or not.

11:33AM 10          Q.     And they have -- and what is the Regional Water  
11 Quality Control Board?

12          A.     As I stated, it's the -- it's the -- the regulatory  
13 body, the government body that regulates the water for that  
14 region for -- they have different regions in the state.

11:33AM 15          Q.     And they've actually conducted some of the  
16 inspections at the site; correct?

17          A.     That is my understanding.

18          Q.     And they have a separate website, separate from EPA  
19 and DTSC; correct?

11:34AM 20          A.     I believe they do.

21          Q.     Now, did you check the documents for -- the building  
22 department for L.A. County to see if there were any permits  
23 relating to sumps, septic tanks, buildings or -- that you  
24 discussed in your report as to when they were built?

11:34AM 25          A.     I did not look at the building department records.

1 Q. So would you say you have exhausted all known  
2 sources of information?

3 A. All known information -- sources of information  
4 about?

11:34AM 5 Q. The issues that you're testifying about.

6 A. I have reviewed all -- as I said more than once, all  
7 the sources of information that I -- provided to me and that I  
8 got on my own and rendered my opinions based on those  
9 documents.

11:34AM 10 Q. All right. I'm going to come back, but I want to  
11 talk about something else. I want to talk about perchlorate.  
12 Actually, you know what? Let's talk about something else.

13 In the field of the history of environmental  
14 regulation, is the year 1980 important?

11:35AM 15 THE COURT: Rephrase your question.

16 THE WITNESS: I -- I don't understand -- all years  
17 are important.

18 Q. (BY MR. BLUM:) What -- in 19 -- isn't 1980 the year  
19 that the first regulations relating to RCRA were published?

11:35AM 20 A. That is true.

21 Q. Do you know when in 1980?

22 A. Oh, I -- I forget the precise date.

23 Q. Summer? Winter? Fall?

24 A. I still forget the precise date.

11:35AM 25 Q. Would it be correct that prior to these regulations,



1 there were no federal regulations controlling the disposal,  
2 transportation, or handling of hazardous wastes?

3 A. These -- these were the first -- "these" being RCRA,  
4 the RCRA regulations were the first regulations that I'm aware  
11:36AM 5 of related to the -- the -- what I called yesterday the  
6 cradle-to-grave monitoring of the handling of hazardous wastes  
7 at facilities.

8 Q. Were you actually working as an environmental  
9 professional at that time?

11:36AM 10 A. Yes, I was.

11 Q. Weren't there a lot of companies trying to figure  
12 out exactly what those regulations meant and what they had to  
13 do to comply?

14 A. The companies -- when you say "companies," do you  
11:36AM 15 mean -- you're asking if I was an environmental professional.  
16 You mean environmental professional companies or manufacturing  
17 companies?

18 Q. Manufacturing companies.

19 A. I -- I'm aware that many manufacturing companies  
11:36AM 20 were trying to figure out in 1980 and before because there were  
21 drafts of the regulations, prior to, what their  
22 responsibilities were going to be pursuant to those  
23 regulations.

24 Q. And would it be correct that a manufacturing company  
11:37AM 25 that wanted to follow the rules should in 1980 when the rules

1 were first published take a look at their operations, compare  
2 them to the regulations, and then determine what they can still  
3 do and what they have to stop doing?

4 A. The beginning -- could you repeat the question?

11:37AM 5 I've lost the first part of it.

6 Q. Isn't it correct that a manufacturing company at the  
7 time the rules were first published that wanted to be a good  
8 environmental steward and comply with the law should have  
9 looked at what their operations were, compared them to what the  
10 RCRA regulations said, and then determined this I can do, this  
11 I can't do, and this I got to change?

12 A. A manufacturer who wants to comply with the new --  
13 you're talking about RCRA; right?

14 Q. Yes, sir.

11:38AM 15 A. A manufacturer who wanted to comply with RCRA --  
16 And we're talking about in 1980?

17 Q. Yes, sir.

18 A. -- in 1980, if they wanted to comply with the law  
19 and the regulations would -- it would be a good practice to  
20 review all of their practices, current practices at the time,  
21 for -- that would be regulated under these new regulations,  
22 including all of the detailed handling of hazardous waste, and  
23 determine how they may have to alter any of their operations in  
24 order to comply.

11:38AM 25 Q. Isn't that what -- isn't that what Whittaker did?

1 Isn't that what all these memos of 1980, 1981, and 1982 are, a  
2 good company that wants to follow RCRA, trying to come to grips  
3 with these new rules?

11:39AM 4 A. I've read a lot of documents and including those  
5 that I testified about earlier this morning. And I -- I can't  
6 recall any that say what that -- we're doing a review of RCRA  
7 and we want to figure out what we have to do to comply and  
8 here -- and here's the list of options -- the list of measures  
9 we need to take.

11:39AM 10 Q. You didn't see -- in any of the internal memos that  
11 Mr. Richard showed you, none of them said these are RCRA  
12 violations, we've got to change our procedures?

13 A. There were references to RCRA violations, there were  
14 references to bad policing of waste handling, and there were --  
11:39AM 15 excuse me -- references to management of the waste handling  
16 processes.

17 Q. And didn't they say we've got to change what we're  
18 doing?

19 A. I don't recall that phrase.

11:40AM 20 Q. All right. Can you go to Exhibit 1427, please.

21 MR. BLUM: Stipulated, Your Honor.

22 (Exhibit 1427 received into evidence.)

23 THE WITNESS: 1427? Is it in the binder?

24 Q. (BY MR. BLUM:) Yes, sir. No, it's going to be up  
11:40AM 25 on the screen.

1 A. Oh, okay.

2 Q. Do you see this document?

3 A. I do.

4 Q. This is one of the documents you relied upon;

11:41AM 5 correct?

6 A. It's one of the documents I reviewed and

7 considered --

8 Q. Okay.

9 A. -- doing my work on this case.

11:41AM 10 Q. And this is from an inspection by the Regional Water  
11 Quality Control Board at the L.A. region; correct?

12 A. It's the annual RCRA Groundwater Monitoring  
13 Inspection and Evaluation Report.

14 Q. Okay. By the Regional Water Quality Control Board;  
11:41AM 15 right?

16 A. Yes. That's what it says.

17 Q. Now, if you can go to the -- page 2, paragraph 3,  
18 where it says view and evaluation.

19 A. Okay.

11:41AM 20 Q. And if you -- now, we've talked about -- I think  
21 we've talked about this. But an ISD, that's an interim status  
22 document?

23 A. You're asking me if ISD is interim status document?

24 Q. Yeah.

11:42AM 25 A. Can you show me in the document where it defines

1 that?

2 Q. Do you know what interim status is?

3 A. I know what interim status is, yes.

4 Q. If you go above that, under "Purpose."

11:42AM 5 MR. BLUM: It's at the top of the page.

6 Q. (BY MR. BLUM:) Do you see under "Purpose," it  
7 defines ISD as an interim status document?

8 A. I see that.

9 Q. You know, this brings up a side -- a side issue.

11:42AM 10 You -- I know we went through your expertise. But you've,  
11 um -- you don't have any professional designations in  
12 California, do you?

13 A. I do not.

14 Q. And you've never lived or physically worked in  
11:42AM 15 California, have you?

16 A. I have -- I've never lived in California.

17 Q. Well, have you ever physically been in California  
18 for work other than testifying as an expert?

19 A. Yes, I have.

11:43AM 20 Q. Are you an expert in California environmental law?

21 A. I used -- as with any jurisdiction, the rules, laws,  
22 regulations change constantly. So I review, as I'm involved in  
23 a specific assignment, site assessment assignment or some  
24 other, look at them at that point and see how they apply at  
11:43AM 25 that point. I wouldn't call myself an expert in California law

1 going back in time. But as it would apply to an assignment I  
2 had, I would gain the expertise I needed to fulfill my  
3 requirements for that project.

11:43AM

4 Q. Are you an expert in what the California  
5 environmental law was in the 1980s?

6 A. I have reviewed a number of the regulations and laws  
7 as it applies to -- sufficiently, I think, to render the  
8 judgments I'm rendering here.

11:44AM

9 Q. Have you looked at opinions of the different  
10 regulatory agencies or the Attorney General or Courts, for that  
11 matter, interpreting these opinions to see how they were  
12 applied in the 1980s?

13 A. I have not looked at any court records.

11:44AM

14 Q. Have you looked at decisions from the Regional Water  
15 Quality Control Board?

16 A. Regarding?

17 Q. How the monitoring programs were interpreted in the  
18 1980s.

19 A. The -- which monitoring programs?

11:44AM

20 Q. The monitoring programs that were under California  
21 law that required or effected the obligation to monitor  
22 groundwater.

23 A. Can we put all that together into a question now?

24 Q. Yeah. What's the Porter-Cologne Act?

11:44AM

25 A. What's that?

1 Q. The Porter-Cologne Act.

2 A. I'm not familiar with that Act.

3 Q. Can you tell me whether or not what Title 9 -- or  
4 sorry, what Title 10 was to the Hazardous Waste Control Act in  
11:45AM 5 the 1980s?

6 A. I am not familiar with Title 10.

7 Q. Can you tell -- can you tell me whether or not in  
8 the 1980s California was even empowered to enforce RCRA?

9 A. I -- I do not know when California was designated by  
11:45AM 10 EPA to be responsible -- to carry out RCRA.

11 Q. Isn't it true that during parts of 1980, EPA  
12 withdrew the ability of California to enforce RCRA? And this  
13 is during some of the time periods that we're dealing with  
14 here.

11:45AM 15 A. I am not aware of that -- that withdrawal.

16 Q. Well, let me ask you, then. Are you an expert in  
17 California environmental law for the 1980s?

18 A. I would not call myself an expert in the law.

19 Q. So when you're talking about obligations that  
11:46AM 20 Whittaker may have had, you are not rendering an opinion that  
21 they were required under any law of the State of California,  
22 are you? Because you're not an expert.

23 A. If I render an opinion -- if I read a law or set of  
24 regulations and it requires something, let's say, for example,  
11:46AM 25 groundwater monitoring under the RCRA regulations and I can

1 read that and I -- and I see what the requirements are, I  
2 believe I can render an opinion on it.

11:46AM 3 Q. I'm talking about California law here, Doctor, not  
4 about federal law. I'm talking specifically, would it be  
5 correct that you are not qualified to tell this jury anything  
6 about what California law required Whittaker to do in the  
7 1980s?

11:47AM 8 A. I believe I did testify about the -- some of the  
9 earlier laws, the '07 and '17 laws and Dickey Commission that  
10 had -- has some requirements. Those, as far as I know, were  
11 still in place in the 1980s. Some of the finer points, the  
12 Title 10 that you talked about, some of the other -- I forget  
13 the names of the -- the act, those I am not familiar with and  
14 would not -- and a result, would not render an opinion related  
11:47AM 15 to them.

16 Q. By the way, we checked your report and your, um,  
17 rebuttal report as well as your deposition. We found no  
18 mention in those that you looked at the EPA website. Was that  
19 just an oversight on your part?

11:47AM 20 THE COURT: Counsel, rephrase your question.  
21 Don't -- don't testify to the jury as to what you did.

22 Q. (BY MR. BLUM:) If there is no mention in your  
23 reports, the two reports you did, of you looking at the EPA  
24 website, does that mean you didn't do it?

11:47AM 25 A. It does not.



1 Q. Weren't you required -- was it your understanding  
2 that you were required to list all of the sources of data you  
3 considered?

4 A. When I prepare a report, I endeavor to -- and I've  
11:48AM 5 got an assistant that I use -- for keeping track of the sources  
6 that I review and -- and seek. And I -- if I did not have the  
7 EPA website listed in my two expert reports, then that was an  
8 oversight on -- an omission on my part. I did look at the EPA  
9 website.

11:48AM 10 Q. And is it in either of your reports in those lists  
11 of documents you reviewed?

12 A. Do you have copies to show me that I can check?

13 Q. You don't have a copy of your report?

14 THE COURT: Counsel, 403. Please move on to your  
11:48AM 15 next question.

16 Q. (BY MR. BLUM:) Okay. Now, let's talk about  
17 perchlorate for a moment.

18 Now, you testified that at the time -- in the '80s,  
19 that there was not an understanding that perchlorate was a  
11:49AM 20 health risk; correct?

21 A. The understanding in the regulatory community and  
22 the environmental consulting type community was limited, very  
23 limited for perchlorate health impacts in the -- you said early  
24 1980s?

11:49AM 25 Q. Well, how about through 1988.

1 A. Through that time period.

2 Q. At the time, perchlorate -- the problem with  
3 perchlorate was thought to be that it was ignitable; correct?

11:49AM 4 A. It -- it -- during that time period, it was believed  
5 to be ignitable.

6 Q. And isn't it correct that diluted perchlorate,  
7 perchlorate that was diluted with water, was not thought to be  
8 ignitable?

9 A. By whom?

11:49AM 10 Q. By the industry that you work in.

11 A. The -- the -- that would really be a function of  
12 the -- whatever else was included -- you're talking about a  
13 mixture of water and perchlorate.

14 Q. Yes.

11:50AM 15 A. What the -- what other substances may be there,  
16 what's the percentage of water and perchlorate, ignitability  
17 really -- it's not just a -- it just doesn't go away if you put  
18 a little bit of water on it.

11:50AM 19 Q. Wasn't there a -- what some people referred to as a  
20 1 percent rule, that perchlorate had to be at least more than  
21 1 percent of the solution in water in order for there to be a  
22 potential that it could be ignitable?

23 A. I am not familiar with that rule.

24 Q. Are you -- are you --

11:50AM 25 A. And it's probably not a -- it's probably more of a

1 guideline or hypothetical as opposed to a -- strictly what a  
2 rule would be.

3 Q. All right. Can we go to Exhibit 468, please.

4 MR. BLUM: It's stipulated.

11:50AM 5 Q. (BY MR. BLUM:) All right. Now, this is one of the  
6 exhibits that you discussed with Mr. Richard, please --  
7 correct?

8 A. I did. Yes.

9 Q. All right. Just, I'm sorry, if you'd just give me a  
11:51AM 10 moment.

11 And according to the exhibit, what did Whittaker do  
12 once it located these materials?

13 Well, I'll help you. It's in the second -- the  
14 second and third line of the first paragraph.

11:51AM 15 A. It does not say anything that somebody did in the  
16 second, third line of the first paragraph.

17 Q. What did Mr. Jisa say was going to happen?

18 A. I don't see anything that says Mr. Jisa said  
19 anything.

11:51AM 20 Q. All right. What did the author say was going to be  
21 necessary?

22 A. It says -- I'll read it, the clause. "It will be  
23 necessary for Jim Jisa to have a contracted wasted [sic] hauler  
24 remove it from Bermite."

11:52AM 25 It doesn't say he did anything, which was the

1 original question. It just says that it will be necessary for  
2 him to do it. Doesn't say he did it.

3 Q. It doesn't say let's go out to the burn pit and drop  
4 it on the ground, does it?

11:52AM 5 A. It does not say that.

6 Q. Doesn't say it says we're going to call a hauler and  
7 remove it; correct?

8 A. It -- it does not say --

9 THE COURT: All right. Counsel, move on to your  
11:52AM 10 next question, please.

11 Q. (BY MR. BLUM:) Do you have any evidence that you've  
12 read or seen that the waste hauler was not called?

13 A. For this particular body of waste that's talked  
14 about in this memo?

11:52AM 15 Q. Yes.

16 A. I -- I have not seen any documentation other than  
17 this about the handling of that waste, whether it was taken  
18 offsite by a hauler, dumped on the ground, or left where it was  
19 when they wrote the memo.

11:53AM 20 Q. So you cannot testify that the material was not  
21 removed by a waste hauler, can you?

22 A. As I said, I don't know what was done with it,  
23 whether -- whether it was handled by the waste hauler or not.

24 Q. Now, if you take a look at the third paragraph, do  
11:53AM 25 you see what's in caps?

1 A. I do see that.

2 Q. And it talks about these types of waste. And then  
3 what does it say?

11:53AM

4 A. "Which are then," in capitals, "NOT NOW HANDLED IN  
5 THE SYSTEM."

6 Q. Does that mean to you that these are wastes that are  
7 no longer used in the manufacturing process?

8 A. No. It doesn't say that.

9 Q. Could it mean that?

11:53AM

10 A. For me, if that's what it meant, then that's what it  
11 should say. It says, to me -- when I'm thinking the system,  
12 this memo is about liquid waste and handling liquid waste. And  
13 it sounds like it's not handled -- whatever the system is for  
14 handling of liquid waste at the site.

11:54AM

15 Q. Can you say to a reasonable degree of scientific  
16 certainty that what is meant by this memo is not that these are  
17 just -- these are just products that aren't used anymore at the  
18 site?

11:54AM

19 A. That is not stated in this -- in this memo, and the  
20 language to me doesn't imply that.

21 Q. All right. Let's go to Exhibit 445, stipulated.

22 THE COURT: And there's no need to state that when  
23 it's already been received, in effect.

24 MR. BLUM: Okay. Thank you, Your Honor.

11:55AM

25 Q. (BY MR. BLUM:) Now, this is the document that the

1 plaintiffs have coined the mystery memo. You've seen this  
2 before; correct?

3 A. I have.

4 Q. All right. Now, I want to -- in your job, your  
11:55AM 5 assignment here, were you asked to make a distinction between  
6 what was disposed of post-1967 versus pre-1967?

7 A. I was not.

8 Q. So when you say something was disposed of, you're  
9 not rendering an opinion as to when it was disposed of;  
11:55AM 10 correct?

11 A. Unless the -- the documentation which I base that  
12 statement states what had happened, I am not -- my opinions on  
13 waste dumping that occurred is not -- it is not within -- a  
14 pre-'67 versus a post-'67.

11:56AM 15 Q. Or when they say they found a drum, you have no  
16 opinion as to when that drum was actually put at that location;  
17 correct?

18 A. I do not recall seeing any evidence related to the  
19 drum recoveries that stated when it was placed.

11:56AM 20 Q. Okay. So, for instance, if we go to the -- under  
21 Summary, if we go to the paragraph, the first one where it  
22 talks about 40 years or more, landfills evidently were anywhere  
23 from one day to possibly 40 years?

24 A. Can you -- I don't know where you are.

11:56AM 25 Q. Sure. It's 445.

1 A. Oh, gotcha. The second paragraph?

2 Q. Yeah. Do you see where it says 40 years, sir?

3 A. At the end of the paragraph?

11:57AM

4 Q. No. It's actually -- yeah, I guess it's towards the  
5 end.

6 A. I see the paragraph.

7 Q. All right. Could it have been longer than 40 years?

8 A. I'll read the paragraph so I know what you're  
9 talking about.

11:57AM

10 Q. Sure.

11 (Pause in the proceedings.)

12 THE WITNESS: Well, it says the use of landfills  
13 evidently was anywhere from one day to possibly 40 years or  
14 more.

11:57AM

15 Q. (BY MR. BLUM:) So these landfills could have been  
16 operating for a century; correct?

17 A. Uh, I'm trying to remember if the history goes back  
18 to 1887 or not. I thought -- yeah, I -- I'm not -- I  
19 haven't -- I'm not focused on what the history was back in 1887  
20 and the few decades thereafter.

11:58AM

21 Q. Well, your job was to look at the site from 1934 to  
22 1987; correct?

23 A. I primarily focused on the early 1940s as far as  
24 activities on the site through '87.

11:58AM

25 Q. But I know -- that may be primarily. But your job

1 was, as stated in your report, '34 to '87; correct?

2 A. I believe so.

3 Q. Could these landfills have been operating in 1934?

4 A. I don't recall any information from -- well,

11:58AM 5 actually, with many of these, there was no information because  
6 they got scooped up and taken away without submitting any  
7 records. I do not recall any records that document the period  
8 during which these landfills were used.

9 Q. So as a result, as a scientist, you can't conclude  
11:58AM 10 what was the total length of the operation of these landfills?

11 A. That -- I cannot based on the information that I've  
12 seen, the limited information on the -- provided by the  
13 consultants on the landfills. I cannot conclude what the  
14 length of operation was.

11:59AM 15 Q. All right. And when it talks about, right above  
16 that, drums and metal containers, you have no opinion as to  
17 when those drums or containers were put in the landfills, do  
18 you?

19 A. It's that same paragraph?

11:59AM 20 Q. Yeah. It's -- yes. You know what? Um, no, I'm  
21 sorry. I've hit my screen.

22 Let's move down to the -- below that, the paragraph  
23 that starts "The materials that have been found." And it talks  
24 about metal scrap and it talks about liquid or solid hazardous  
12:00PM 25 wastes. Correct? "Liquid and solid hazardous wastes" is



1 underlined.

2 A. Yes. I'm reading the whole paragraph because you  
3 said a couple of things.

4 Q. Sure.

12:00PM 5 (Pause in the proceedings.)

6 THE WITNESS: It does say and it is underlined  
7 that -- "liquid and solid hazardous wastes."

8 Q. (BY MR. BLUM:) And you have no idea when those  
9 liquid or solid wastes were put in these landfills, do you?

12:00PM 10 A. No. Again, there was no documentation what the  
11 material was. And also, the -- it says it was manifested and  
12 shipped offsite. I have not seen the manifest records which  
13 would tell us what it was. And knowing what it was, what the  
14 waste consisted of, could help inform us of when it was put  
12:01PM 15 there. For example, TCE waste wouldn't have been there a  
16 hundred years ago.

17 Q. TCE waste could have been there during -- placed  
18 there in World War II, couldn't it?

19 A. Yes, it could have. TCE was used on the site for  
12:01PM 20 degreasing during World War II.

21 Q. But sitting here today, you have no opinion as to  
22 when these liquid and solid hazardous wastes referred to on  
23 page 1 were actually placed in the landfills, do you?

24 A. Based on the records that I've seen and been  
12:01PM 25 provided and have been made available, I cannot make that

1 judgment because the -- as I said, the manifests and the  
2 detailed testing results have not been provided to me.

3 Q. Now, what is a manifest?

12:02PM 4 A. Manifest is a form, the government form. And when  
5 you're shipping a waste offsite from one location to another,  
6 this manifest is a government form that informs the Government  
7 of what it is, where it went, came from, and where it went to  
8 and what the quantity was and the timing.

12:02PM 9 Q. Now, when you fill out a manifest, don't you --  
10 isn't there actually carbons so you're actually filling out  
11 multiple copies of it -- multiple copies of the manifest?

12 A. It's one of those old school multiform -- multicopy  
13 forms to fill out.

12:02PM 14 Q. And one of the copies goes to the Department of  
15 Toxic Substances Control; correct?

16 A. I know a copy goes to state regulatory agency.

17 Q. So if Whittaker was trying to hide these -- these  
18 activities, wouldn't manifesting them have been a real bad  
19 idea?

12:03PM 20 A. Well, I'm not going to endeavor to decide what's a  
21 bad idea for Whittaker or not.

22 Q. Let me --

23 A. Supplying the manifest -- manifesting the waste and  
24 supplying the copy to the State is complying with the  
12:03PM 25 regulations.

1 Q. And it's telling the State, hey, there's some  
2 hazardous wastes at that site?

3 A. Well, it would be telling them there was some  
4 hazardous waste at that site.

12:03PM

5 Q. Is there a tax on hazardous waste?

6 A. There is.

7 Q. And the taxes on hazardous waste are usually drawn  
8 from manifests; correct?

12:03PM

9 A. I'm not familiar with how the Government decides  
10 what the tax is going to be.

11 Q. Doesn't the Government look at manifests in order to  
12 at least use that information in calculating the taxes?

13 THE COURT: The Court's going to sustain its own  
14 objection as lack of foundation.

12:04PM

15 Q. (BY MR. BLUM:) Do you know how the hazardous waste  
16 tax system works in California in the 1980s?

17 A. I am not familiar with the hazardous waste taxing.

18 Q. All right. Let's go down, then. Let's go to the  
19 last sentence after it says, "Manifest was shipped to a  
20 permitted hazardous waste facility." What is a permitted  
21 hazardous waste facility?

12:04PM

22 A. Facilities that receive waste materials have a  
23 permit. They're allowed to accept certain types of wastes  
24 based on the physical nature, whether it's solid or liquid,  
25 based on the chemical constituents, based on volumes,

12:04PM

1 characteristics like that. So each facility has its own permit  
2 with its own restrictions. So that's what a permitted  
3 hazardous waste facility is.

12:05PM 4 Q. That means that in order for a hazardous waste  
5 facility to accept the waste, the facility has to know what the  
6 waste is; correct?

7 A. The facility certainly should know what the waste  
8 is. It doesn't always happen, I can tell you. But that  
9 facility that is permitted should know what they're receiving.

12:05PM 10 Q. So the facility, if they follow the law, is supposed  
11 to have a waste analysis with the manifest or something else to  
12 prove what's in the waste that they're trying to dispose of at  
13 that permitted facility?

12:05PM 14 A. "Prove" is kind of a strong term there. It's --  
15 there's representative sampling that gets done. There are  
16 tests that go along with the permit. There are tests that have  
17 to be done to show the characteristics of the waste and that it  
18 complies -- that the waste would comply or not comply with  
19 the -- with the permitted terms.

12:05PM 20 Samples are representative. You know, you got a  
21 truckload of stuff, you may collect one or two samples out of  
22 it. That doesn't prove that all of it has that characteristic.  
23 That's why I differed with the word "prove."

24 Q. That's fine.

12:06PM 25 But there's a record at the facility relating to

1 what is taken there, by whom, and at least what the  
2 representations are of what's in it; correct?

3 A. There should be.

4 Q. And those records, at least copies of them, are also  
12:06PM 5 given to a governmental agency but -- by rule and regulation;  
6 correct?

7 A. It's my understanding that those -- a copy -- or the  
8 tear-off copies of the form goes to the regulatory authority.

9 Q. So in manifesting wastes such as Whittaker did,  
12:06PM 10 according to this memo, they created a long and duplicative  
11 record of exactly what wastes were at their site; correct?

12 A. What do you mean by "long and duplicative"?

13 Q. Well, they created several different records that  
14 were sent to the State of California stating what hazardous  
12:07PM 15 wastes were at their site?

16 A. If -- if they did, indeed, ship this to a hazardous  
17 waste facility under a manifest, then the record of that  
18 manifest or a copy of that manifest should be at the state  
19 agency.

12:07PM 20 Q. Okay. As well as records from the receiving site;  
21 correct?

22 A. Well, it's the same form, as everyone who touches it  
23 signs in one of the boxes and says, I -- you know, I had it  
24 first, I gave it to somebody else, and they gave it to the  
12:07PM 25 trucker, the trucker gave it to the facility. It's all in one

1 form.

2 Q. All right. That's the cradle-to-grave regulation;  
3 right?

4 A. From the handling of the waste that goes offsite.

12:07PM

5 Q. All right. Let's go down to the next paragraph.  
6 It's the investigation and characterization of the landfill --  
7 landfills has so far consisted of. Then it talks about -- do  
8 you have any problem with the first act of an investigation  
9 being a visual inspection of the surface contours and presence  
10 or absence of waste materials on the surface? Anything wrong  
11 with that?

12:08PM

12 A. What do you mean is anything wrong with it?

13 Q. Is there anything wrong with the initial  
14 investigation of a landfill being a visual inspection as  
15 described in paragraph 1?

12:08PM

16 A. I think it -- the visual inspection is actually a  
17 good way to begin an investigation.

18 Q. The second thing they did was a subsurface visual  
19 inspection by uncovering the near-surface soils with a backhoe  
20 or a dozer. Anything wrong with that?

12:08PM

21 A. Okay. When you say "anything wrong," what do you  
22 mean?

23 Q. Well, is that a proper thing to do as a second step  
24 in investigating a landfill?

12:08PM

25 A. It's a proper step to take in the process.

1 Q. All right.

2 A. Whether it's the second step, the first step or the  
3 third, it -- it's a proper step to take at some point.

12:09PM 4 Q. Okay. Now, we talked -- you talked about an OVA,  
5 a -- and that's an organic vapor analyzer?

6 A. That's my understanding of what OVA is.

7 Q. How does an OVA work? And by the way, I don't mean  
8 the technical end. Can you do it --

9 A. You don't want the chemistry inside the device?

12:09PM 10 Q. I want it at a kindergarten level so I'll understand  
11 it.

12 A. It is a device -- small box, size of a lunch box  
13 kind of. It has a probe that comes out of it. It's battery  
14 operated. The probe has a -- kind of a -- several-inch-long  
15 metal tube that is hollow. And it is meant to -- to -- as I  
16 said earlier this morning, to analyze vapors, just air. You  
17 don't want to stick it in the dirt, stick it in the water  
18 because then you have to clean the machine or replace parts.

12:10PM 19 It -- you hold it over vapors that you want to  
20 analyze. Those vapors -- there's a fan in the machine. It  
21 sucks the vapors through the machine. It does an analysis and  
22 will tell you the total amount of a set of organic -- organic  
23 compounds present in that sample.

12:10PM 24 Q. It doesn't distinguish between different kinds of  
25 organic compounds; correct?

1           A.     Not the -- the OVA that's standardly used in the  
2 field.

3           Q.     What's a screening tool?

4           A.     A screening tool?

12:10PM 5           Q.     Yeah. In an environmental investigation, is an OVA  
6 a screening tool?

7           A.     I don't think it could be considered a screening  
8 tool.

9           Q.     Tell the jury what a screening tool is.

12:10PM 10          A.     A screening tool is a tool that's used in an  
11 analysis that's a -- an early-on step just to get a first  
12 indication, like if you -- there was talk of excavating with a  
13 backhoe.

14                     One thing you use an OVA for is protection of your  
12:11PM 15 people in the field. If there's these volatile vapors that  
16 could be hazardous to your health, the person standing next to  
17 the hole who's taking notes on what they're seeing needs to  
18 know that.

19                     So it will be -- it's called screening the sample.  
12:11PM 20 You're screening the vapor. And -- and it's an initial  
21 analysis. It doesn't tell you the details of what's in there,  
22 but it tells you roughly. And it allows you to categorize what  
23 you're seeing and use that as one basis for what to do next.

24           Q.     And that's -- and this was a proper next step --  
12:11PM 25 correct? -- using an OVA as a screening tool?



1           A.     The -- the No. 2 in the other question and the next  
2 and everything is -- is difficult. But it is -- a screening  
3 tool and an OVA in this case as a screening tool is a proper  
4 component of an assessment.

12:11PM

5           Q.     Okay. Now, if an OVA finds the presence of VOCs,  
6 isn't the next step to do what's called confirmatory sampling?

7           A.     That would be a possible next step. It depends on  
8 what you find, where you find it, how much you found. It's --  
9 it's not -- it's not a -- you know, you find this so,

12:12PM

10 therefore, you have to do this next step.

11          Q.     Isn't that exactly, though, what Whittaker did?  
12 They then took soil samples?

13          A.     I understand that they did take some soil samples.  
14 And I can't recall the details of whether in this memo they --  
15 they relate what their sequence of investigation techniques  
16 was.

12:12PM

17          Q.     Well, isn't -- No. 3 is using the OVA and No. 4 is  
18 collecting samples to determine if there are hazardous wastes?

19          A.     Oh, that is what No. 4 states they did.

12:13PM

20          Q.     And then No. --

21          A.     If they collected them. It doesn't -- it's general,  
22 obviously. Doesn't say where they collected or what the  
23 criteria were for getting from Step 3 to Step 4.

12:13PM

24          Q.     And then No. 5 is using all of the experience and  
25 all of the data concluding what, if any, part of a landfill

1 should be a hazardous waste; correct?

2 A. Well, that's not what it says.

3 Q. Right. Well, make -- it says, "Making a  
4 determination from experience that an uncovered material is or  
12:13PM 5 is not classified as a hazardous waste"; correct?

6 A. That's what it says.

7 Q. All right. And then those -- then it goes on to say  
8 that those parts that were hazardous wastes were manifested out  
9 and those parts that were not were just sent to an ordinary  
12:13PM 10 landfill; correct?

11 A. I've just read the next paragraph which begins "the  
12 percentage."

13 It says here that -- that percentage of hazardous  
14 wastes in these different areas varies. And it said that the  
12:14PM 15 majority of low percentage of hazardous wastes. The next  
16 sentence, though, says, "Those materials have been determined  
17 to be hazardous."

18 Hazardous materials are different from hazardous  
19 waste. So it doesn't say that they took away hazardous waste.

12:14PM 20 It says, "Those materials that have been determined to be  
21 hazardous have invariable" -- "have invariability [*sic*] been  
22 found intact drums or deteriorated, broken drums or metal  
23 containers." It tells you what they found.

24 Q. Now, if we're going to be technical, a hazardous  
12:14PM 25 material is something under the Hazardous Materials

1 Transportation Act; correct?

2 A. There are hazardous materials designations under  
3 state regulations, under federal regulations. There are  
4 different lists of hazardous materials.

12:15PM

5 Q. Just for a moment let's assume that the materials  
6 and waste were used interchangeably. Doesn't the first -- the  
7 statement on the first page say that if it was found to be a  
8 hazardous waste, it was manifested and, if it was not a  
9 hazardous waste, it was sent to a landfill?

12:15PM

10 A. Let me -- back on the first page on the hard copy I  
11 have here. Which paragraph are you referring to?

12 Q. Third paragraph. "The materials that have been  
13 removed have been disposed of in an appropriate manner. The  
14 hazardous waste has been manifested and shipped to a permitted  
15 hazardous waste facility, and the other wastes have been hauled  
16 to a local landfill."

12:15PM

17 A. That's what it says.

18 Q. All right. Now, do you see where -- if we go back  
19 to the second page where it says conclusion and then you see in  
20 the middle where it talks about there's a need for more  
21 investigation and --

12:16PM

22 A. Hang on a second. Are you going to highlight it  
23 or --

24 Q. Sure. Go ahead.

12:16PM

25 A. I see. Right from the beginning?

1 Q. Yeah.

2 (Pause in the proceedings.)

3 Q. (BY MR. BLUM:) Tell me when you've read it.

12:16PM 4 A. Oh, I'm sorry. I thought you were going to ask a  
5 question about it.

6 Q. Do you see where it says, "An RFA," RCRA facility  
7 assessment, "is now being planned for the entire facility by  
8 the EPA. This assessment will be a complete investigation of  
9 the disposal practices of the Bermite facility"?

12:17PM 10 A. I see that.

11 Q. Did you ever see the EPA's assessment?

12 A. I do not recall seeing an EPA authored RCRA facility  
13 assessment.

14 Q. All right. If we can go to page 3. And I'm sorry.  
12:17PM 15 We can move to page 5.

16 Now, is there a specific definition of "landfill"  
17 under RCRA?

18 A. I believe "landfill" is defined in -- in RCRA. I'm  
19 not 100 percent sure, but I believe it is.

12:17PM 20 Q. When the author of this document, was he using the  
21 RCRA definition or what most of us would describe as a  
22 landfill? What's Webster's dictionary definition?

23 A. I do not know the person who prepared this or what  
24 they were thinking, and I actually don't know the Webster's  
12:18PM 25 definition.

1 Q. All right. We can go to the next page. And the  
2 next page talks about the investigation that was done at some  
3 of these different, quote, "landfills," unquote -- right? --  
4 specifically the East Fork?

12:18PM 5 A. Yes. On the page you have up there, yes.

6 Q. All right. Now, you see where it says, um, Samples  
7 Taken and 11 samples?

8 A. Correct. 11 samples as indicated on Figure 2.

9 Q. All right. And was a RCRA hazardous waste analysis  
12:18PM 10 performed on these samples?

11 A. It says under -- well, Sample 1, A through E, 10  
12 samples taken. And then it says, "RCRA hazardous analysis,  
13 this test not run."

14 Q. Okay.

12:19PM 15 A. And I don't know what RCRA hazardous analysis is.  
16 You asked -- your question was about a RCRA hazardous waste  
17 analysis. But the author of the memo said RCRA hazardous  
18 analysis.

19 It also goes on, under Sample No. 6 just below that,  
12:19PM 20 it addresses -- or it lists RCRA hazardous analysis and said  
21 the results were negative.

22 Q. Okay. Do you know what a RCRA hazardous waste  
23 analysis is?

24 A. What a RCRA hazardous waste analysis is?

12:19PM 25 Q. Yes.

1           A.     Yes, which this doesn't say, by the way. It says  
2 RCRA hazardous analysis.

3                   There are tests that can be done to -- in the  
4 laboratory and -- actually, by other means, also -- to  
12:19PM 5 determine if a waste material is actually characterized as a  
6 hazardous waste.

7           Q.     And it says a RCRA analysis. RCRA actually  
8 determines what has to be tested for and the means to test it;  
9 correct?

12:20PM 10           A.     There are designations in RCRA for the test to be  
11 taken and the methods used in the test.

12           Q.     I think it's SW 84.6 is a really --

13           A.     I think it's SW 846.

14           Q.     Right, 846.

12:20PM 15                   It's a very lengthy document that describes, if  
16 you're testing for VOCs, this is how you test; if you're  
17 testing for heavy metals, this is how you test. It's several  
18 feet in length; correct?

19           A.     I don't know about several feet, but it's a very  
12:20PM 20 lengthy document.

21           Q.     All right. And for Sample No. 5, it says the  
22 results were negative; correct?

23           A.     It says the results for the screening bioassay and  
24 for a RCRA hazardous analysis, a negative.

12:20PM 25           Q.     What is a screening bioassay?

1           A.     A bioassay is a test that is performed to get an  
2     indication of the impact of a contaminant or a waste material  
3     or a mixture of contaminants on some biological creatures, I'll  
4     say.

12:21PM

5           A screening assay, kind of like the OVA was a  
6     screening indication for vapors, there are screening techniques  
7     to determine -- or to -- doesn't really determine if it's  
8     screening but to get an idea of whether that -- whatever's  
9     being tested has had an adverse impact on whatever biological  
10    organisms are being evaluated.

12:21PM

11          Q.     And if you get a negative result on the screening,  
12    then you have to go follow through and do the confirmatory  
13    testing -- correct? -- just like the OVA and VOCs?

12:21PM

14          A.     Well, a couple parts of that question. First, I  
15    never said anything about if you get a negative on an OVA you  
16    would do anything in particular. A negative on OVA does not  
17    mean that there is no organics in the vapors. OVAs only --  
18    only -- only analyzed for certain compounds and certain ranges  
19    and are not sophisticated lab tests and are prone to false  
20    positives, false negatives.

12:22PM

21                A screening bioassay is a first indication. But if  
22    there's a concern over some biological community, the fact that  
23    the screening results are negative does not mean there was no  
24    impact. It's just the first step in doing evaluation.

12:22PM

25          Q.     So it's up to the expertise and the knowledge of the

1 environmental professional whether -- after a negative bioassay  
2 result, whether further testing is required; correct?

12:22PM 3 A. Yeah. The next step after doing the screening  
4 bioassay -- now, you can have objectives in your test -- in  
5 your investigation and your testing which should define what  
6 the role in the investigation of the screening is. And if the  
7 results are in certain ranges, whether they're negative or  
8 positive in a range or outside a range, what is going to be  
9 done next and that is what an environmental professional does  
10 and sometimes in concert with regulatory -- regulators.

11 Q. Okay. Let's go to the next page, .7. And this is  
12 for the Hula Bowl 1; correct?

13 A. It is about Hula Bowl 1.

14 Q. Was an OVA used?

12:23PM 15 A. It says OVA, no vapors detected.

16 Q. Were --

17 A. Which actually makes no sense. There are vapors.  
18 There are vapors. If there's no vapor, we couldn't breathe.  
19 So it says no vapors detected, that makes no sense to me.

12:23PM 20 Q. Doesn't that really mean there were no VOC vapors  
21 detected?

22 A. I can only read what's on the page.

23 Q. Does it --

12:24PM 24 A. I can't tell you what the person who wrote this -- I  
25 can't tell you what they did in the field, what they found, or



1 what the person who wrote this means.

2 Q. As an environmental professional, isn't the most  
3 likely meaning of it that there were no VOC vapors detected?

4 A. I'm not going to render an opinion on what somebody  
12:24PM 5 meant when they wrote this down.

6 Q. Well, you've rendered opinions on what people meant  
7 all afternoon, Doctor. What makes you not be able to render an  
8 opinion here?

9 A. I'm reading the words, and these words say no vapors  
12:24PM 10 detected. It says nothing about organics.

11 Q. So am I correct that you are going to stick to only  
12 the verbatim words that are in documents and you're not going  
13 to render an opinion onto the meaning or the intent of any  
14 document here?

12:24PM 15 THE COURT: This is argumentative. Ask your next  
16 question.

17 Q. (BY MR. BLUM:) All right. How many samples were  
18 taken at Hula Bowl?

19 A. It says, "Samples taken, yes." 25 samples as  
12:24PM 20 indicated in Figure 3.

21 Q. All right. Were any of those -- were all those  
22 samples run as a RCRA hazardous analysis?

23 A. Let's see. It says for Samples 1 to 5, which I will  
24 assume they mean there were five samples, although it doesn't  
12:25PM 25 say it, it says RCRA hazardous analysis results, negative. And

1 then the next section, it says samples B2, B3, et cetera, 20  
2 samples taken. And for RCRA hazardous analysis, it says  
3 results, negative.

12:25PM

4 Q. All right. 25 samples run, 25 samples negative;  
5 correct?

6 A. That is what it says on the page.

7 Q. Okay. All right. Let's move on to a completely  
8 different subject.

12:25PM

9 If you could take a look at, um, Exhibit 203,  
10 please. What is Exhibit 203?

11 A. It is titled "Procedures for Disposal of Hazardous  
12 Material," dated January 16 of 1980.

13 Q. Who wrote it?

12:26PM

14 A. This document does not have an author on the title  
15 page or the next page from my recollection, but I -- my  
16 recollection is I concluded it was prepared by  
17 Whittaker-Bermite, but -- but I can't recall, as I sit here,  
18 why I drew that conclusion.

19 Q. You concluded it was written by Whittaker?

12:26PM

20 A. Yes.

21 Q. Didn't you testify yesterday that you found no  
22 manual for the proper handling of hazardous wastes that was  
23 written by Whittaker?

12:26PM

24 A. I don't know if I said it in those words, but I --  
25 I -- I did say I -- I did not have -- well, the record would be

1 what the record is, but I did not at the time recall that I had  
2 any handbooks for -- from -- authored by Whittaker for the  
3 handling of hazardous wastes.

4 Q. You were wrong, weren't you?

12:27PM

5 A. This -- this document, it -- it addresses certain  
6 types of materials and how they are to be handled, certain  
7 types of waste materials on the property.

8 Q. So yesterday when you said you found nothing, there  
9 actually were things; correct?

12:27PM

10 A. There were things for certain types of wastes. I  
11 don't believe this document addresses hazardous waste.

12 Q. Well, let's go to the table of contents, which is  
13 page 2.

12:27PM

14 Now, have you reviewed this document and these  
15 different sections?

16 A. I've reviewed the document. I -- I don't -- it was  
17 a relatively lengthy document. I can't recall whether I read  
18 every page or not, but I -- I did review the document.

19 Q. And can we go to page 5, which deals with burning?  
20 And we talk -- there's initials DOD 4145, et cetera. Can you  
21 remind the jury what you believe that refers to?

12:28PM

22 A. I believe it's a procedure -- the DOD is Department  
23 of Defense. And I think I may have mentioned this earlier in  
24 my testimony. I believe it was either a procedure or a  
25 designation relative to the destruction of waste by burning

12:28PM

1 them.

2 Q. Doesn't that refer to a contract, DOD contract?

3 A. Yeah, I'm not sure if it is a contract or not.

4 Q. So, now, have you dealt with sites that -- where

12:29PM 5 weapons for the Department of Defense were being manufactured?

6 A. Yes.

7 Q. Does the Department of Defense in those instances

8 usually have very extensive requirements that relate to how

9 things are manufactured and dealt with?

12:29PM 10 A. There are certain -- my experience is that how  
11 things are manufactured are specified in great detail, not just  
12 the methods of how but what ingredients, what, for example,  
13 chemical ingredients would be used in the manufacturing  
14 process.

12:29PM 15 Q. So in this case, the use of perchlorate would have  
16 been required by the Department of Defense for the Sparrow and  
17 Chaparral missiles; correct?

18 A. I -- you'd have to show me the contracts or the  
19 specifications.

12:29PM 20 Q. In your experience --

21 THE COURT: Counsel, we're going to take a break  
22 right now.

23 MR. BLUM: Thank you.

24 THE COURT: It's now just about 12:30. We're going

12:29PM 25 to break until 1:00 o'clock.

1 Please remember, don't speak to anyone about the  
2 case, the people, or the subject matter involved. Continue to  
3 keep an open mind until you've had a chance to hear all of the  
4 evidence and hear the views of your fellow jurors.

12:30PM

5 Leave your notebooks behind, and please take  
6 everything else with you. Thank you.

7 THE COURTROOM DEPUTY: All rise for the jury,  
8 please.

9 (Out of the presence of the jury:)

12:30PM

10 THE COURT: Please step down, Doctor, and head  
11 outside.

12 Please be seated, everyone.

13 We're outside the presence of the jury as well as  
14 Dr. Hughto.

12:31PM

15 We're going to be in recess until 1:00 o'clock.

16 Mr. Blum, I'm going to ask if you would please be  
17 aware of being argumentative. You tend to get argumentative  
18 with witnesses as opposed to simply asking the question and  
19 then allowing argument in closing argument.

12:31PM

20 Not only is it -- does it -- is it problematic from  
21 an evidentiary standpoint, but it also tends to drag out the  
22 trial much longer than is necessary. We're spending at times  
23 four to five to six questions when everyone understands the  
24 point after the first question.

12:31PM

25 So I've tried not to interject sua sponte that

1 you're being argumentative, but you can expect that I am going  
2 to start doing it when I see it.

3 All right. We're in recess.

4 (Morning proceedings adjourned at 12:31 p.m.)  
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**CERTIFICATE OF OFFICIAL REPORTER**

COUNTY OF LOS ANGELES           )  
STATE OF CALIFORNIA             )

DATED THIS 20TH DAY OF NOVEMBER, 2021.

/S/ MYRA L. PONCE

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